

**Working Paper 9011**

**INFORMATION AND VOTING POWER  
IN THE PROXY PROCESS**

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## **Abstract**

We document shareholder support for wealth-decreasing changes in corporate governance in the form of antitakeover charter amendments. The enactment of these amendments is shown to be related to ownership structure. This gives rise to a sample selection bias that contaminates traditional event-study results and explains the discrepancy between our findings and those reported in previous studies. We also provide evidence that strategic behavior by managers plays a role in the adoption of these amendments.

## 1. Introduction

Previous studies of antitakeover amendments that are adopted with the approval of shareholders have focused primarily on the wealth effects associated with the enactment of these amendments, and to a lesser extent on the ownership structure of the firms that adopt them. The accumulated evidence concerning the impact of these amendments on shareholder wealth is weak, with point estimates that range from slightly negative to slightly positive.<sup>1</sup> Ownership data and voting patterns suggest that the amendments are supported by corporate insiders and opposed by the typical institutional investor.<sup>2</sup> In addition, it has been noted that firms with amendments in place are less likely to receive a bid than firms in the same industries without antitakeover amendments.<sup>3</sup>

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<sup>1</sup>Stock-price reactions to antitakeover measures are documented by DeAngelo and Rice (1983), Jarrell and Poulsen (1988), and Linn and McConnell (1983). Jarrell and Poulsen identify wealth effects that are negative and statistically significant for some types of amendments using a 31-day return window, and effects that are negative but not statistically significant in shorter return windows.

<sup>2</sup>Brickley, Lease, and Smith (1988) document voting patterns consistent with the hypothesis that institutional investors oppose antitakeover amendments, while corporate insiders support their adoption. Jarrell and Poulsen (1988) report insider holdings that are above average and institutional holdings that are below average in a large sample of firms that enact amendments.

<sup>3</sup>Pound (1987) studies a sample of 100 firms listed on the New York Stock Exchange (NYSE) that adopted both a supermajority amendment and a classified board amendment between 1973 and 1979, and a control sample of 100 NYSE-listed firms that do not have amendments in place. He finds that members of the former group are significantly less likely to receive a bid than members of the latter group. Note, however, that the sample design controls for neither size, industry, earnings history, nor ownership structure. Our evidence, as well as that presented by Morck, Shleifer, and Vishny (1989), indicates that this may give rise to a serious sample selection problem.

These findings are consistent with the belief of many economists that antitakeover amendments protect managers from the discipline of the takeover market while harming shareholders.

The willingness of shareholders to approve antitakeover proposals and the lack of conclusive evidence on wealth effects are of course subject to the alternative interpretation that the amendments are not actually injurious to shareholders.<sup>4</sup> There are reasonable arguments to support this view. One, based on the notion that a strong manager can strike a better bargain for shareholders, is inconsistent with evidence provided by Pound (1987), who reports that amendments do not increase bid premiums.<sup>5</sup> A second argument that is more difficult to refute empirically holds that managers of firms that adopt amendments are simply enjoying contractual protection against takeovers that is afforded to them by shareholders. If we are to conclude that antitakeover amendments are harmful to shareholders, it is important to establish that enactment does, in fact, impose a cost. Then the question of shareholder support for these amendments still begs for an explanation.<sup>6</sup>

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<sup>4</sup>Brickley, Lease, and Smith (1988) find that 96 percent of the amendments in their sample of 288 proposals are approved by shareholders.

<sup>5</sup>DeAngelo and Rice (1983) articulate the hypothesis that managers who enjoy the protection of amendments have a stronger bargaining position. Pound's finding concerning bid premiums is subject to the sample selection problem noted in footnote 3.

<sup>6</sup>When the topic of shareholder support for antitakeover amendments is discussed at all, approval is frequently attributed to the free-rider problem. Jarrell, Brickley, and Netter (1988) take this position.

In this paper, we report the results of a study that examines these issues. We provide evidence on the wealth effects of antitakeover amendments that is substantially stronger than the evidence presented by previous authors. Estimates that incorporate prior information about the likelihood of adoption, as well as the returns realized by firms that might have proposed amendments but did not do so, indicate that the adoption of an antitakeover amendment is associated with a statistically significant negative wealth effect on the order of 1 percent of firm value. This effect is consistent across different types of amendments, including fair-price amendments. Moreover, we are able to account for the discrepancy between our results and those reported by previous authors. The application of standard event-study techniques to our data yields estimated wealth effects consistent with previous results. The different conclusions concerning wealth effects are attributable to a sample selection bias that arises when events are anticipated and inference is based on only one type of outcome.

We also consider the role of ownership structure in the proxy process, in an attempt to characterize that selection bias and to explain why some firms adopt amendments while others do not. Significant differences are documented between a large sample of firms that adopt antitakeover amendments and a control sample selected on the basis of size and industry. An econometric model suggests that parties with representation on a firm's board of directors exert a very strong influence on whether an antitakeover amendment will be enacted. The ownership stake of the chief

executive and the voting power of employee stock ownership plans (ESOPs) are found to be especially important. The presence of institutional investors, who are not typically represented on the board, does not appear to affect the adoption of amendments, though this finding must be qualified because of a potentially serious errors-in-variables problem.

Finally, we examine the issue of shareholder support for wealth-decreasing changes in corporate governance. We document two types of strategic behavior that provide a partial explanation of this phenomenon and complement our evidence concerning the significance of board membership. The first involves the bundling of agenda items that are likely to be considered more desirable with items that are likely to be regarded less favorably by shareholders. A second variety comes in the form of hidden antitakeover amendments. Our data do not afford a direct test of the effect of these activities on shareholder wealth. But the board structure of firms that engage in these activities and the econometric evidence cited above suggest that shareholder approval of proposed antitakeover amendments represents less than a wholesale endorsement of managerial resistance to takeover bids.

The remainder of this paper is organized as follows. We describe our data and present summary statistics for ownership structure, the proxy agenda, and wealth effects in section 2. Our econometric analysis is presented in section 3. We discuss our results in section 4 and summarize our conclusions in section 5.

## 2. The Data

### 2.1 Sample Construction

We constructed a sample of proxy statements containing proposed antitakeover charter amendments using the Jarrell and Poulsen (1988) sample and a group of proxy statements containing proposed antigreenmail charter amendments.<sup>7</sup> The latter sample was supplied by the New York Stock Exchange (NYSE). All proxy statements in the combined sample were mailed during 1984 or 1985. From this sample of 210 firms, we eliminated those observations for which a copy of the proxy statement could not be found in the disclosure data base, and observations in which the firm failed to appear on the Center for Research in Securities Prices (CRSP) monthly master during the month preceding the proxy mailing date. This produced a sample of 187 firms.

We constructed a second sample by selecting from the CRSP monthly master that firm closest in total equity value to the firm proposing the antitakeover amendment, from the set of all firms having the same three-digit standard industrial classification (SIC) code. We refer to this group of firms as the random sample although it involves a size and industry control, because the sample includes firms that proposed antitakeover amendments and

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<sup>7</sup>Antigreenmail amendments require managers to obtain shareholder approval prior to a targeted repurchase of an equity stake at a premium relative to the market price. Jarrell and Poulsen's sample is drawn from Kidder, Peabody & Co. (1984) and the Securities and Exchange Commission's Office of Tender Offers.

firms that did not propose amendments.<sup>8</sup> For each firm in the random sample, we located the proxy statement whose mailing date was closest to the mailing date of the corresponding firm in the antitakeover sample. Complete proxy documents were available for 176 firms.

After reading each of the 363 proxy statements, we decided to exclude from further analysis those firms with 5 percent blockholders who might be considered to represent affiliated enterprises. The typical blockholder in this group is an officer of a firm holding a minority stake in the excluded firm. The purpose of applying this filter, which resulted in the elimination of four firms from the amendment sample and 14 firms from the random sample, is to prevent our results from being contaminated by the presence of firms where blockholders are qualitatively different from the blockholders who are present in the remaining firms. The implications of excluding this subsample are discussed below.

In the analysis that follows, we provide two-way comparisons between firms that propose antitakeover amendments and firms that do not. The sample of firms that propose amendments comprises 183 firms from the original sample plus the 14 firms in the random sample that proposed amendments. We refer to the remaining 148 firms in the random sample as the control sample or the clean

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<sup>8</sup>The Jarrell and Poulsen sample is not purported to be exhaustive, so it is not surprising that the random sample contains firms that proposed antitakeover amendments.

sample. Names, mailing dates, and proxy agenda for all 345 firms are listed in appendix A.

## 2.2 The Agenda

Our taxonomy of the antitakeover amendments found on these proxy statements is presented in table 1. It differs from that used by Jarrell and Poulsen in a number of respects. The category labeled "entrench the board of directors" contains all provisions that would make it more difficult for an outsider to gain control of the board. Included in this category are amendments stipulating that directors may be removed only for cause, amendments that eliminate shareholders' right to vote by written consent, and amendments that limit the rights of shareholders to call a special meeting or nominate candidates to the board, in addition to the classified board amendments considered by Jarrell and Poulsen.

Fair-price and supermajority amendments are treated as a single category, primarily because our sample contains only two pure supermajority amendments. This is consistent with Jarrell and Poulsen's observation that the popularity of these amendments has waned over time. It is also worthwhile to note that while most of the fair-price amendments in the sample conform roughly to the description offered by Jarrell and Poulsen, a number of those labeled as fair-price amendments closely resemble pure supermajority amendments. In some cases, the fair price is defined to be the maximum of the outstanding share price during the two years preceding the offer. Market valuations may be abandoned

Table 1

The frequency of antitakeover amendments and strategic behavior in a sample of 183 proxy statements for NYSE listed firms offering antitakeover charter amendments during 1984-85, and in a sample of 162 proxy statements for a control group selected on the basis of size and industry.

## Frequency of Charter Amendments

<u>Type of amendment</u>	<u>Amendment sample</u>	<u>Random sample<sup>1</sup></u>
Entrench the board of directors	110	12
Fair-price or supermajority	136	9
Antigreenmail	44	1
Blank check preferred stock	33	4
At least one of the above	183	14

## Frequency of Strategic Behavior

<u>Type of behavior</u>	<u>Amendment sample</u>	<u>Random sample</u>
Hidden amendments	7	1
Bundled agenda	24	0
Sample size	183	162

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<sup>1</sup>This sample is random with respect to the presence of charter amendments on the proxy statement, but does involve a size and industry control.

altogether: In at least two cases, the board is permitted to establish a fair price after consulting an investment banker of its choice. These provisions substantially expand the number of situations in which supermajority voting is triggered.<sup>9</sup>

With the exception of blank-check preferred stock, the remaining categories in our taxonomy are additions to the array of takeover defenses considered in the Jarrell and Poulsen study. Antigreenmail amendments bar management from engaging in a targeted share repurchase at a premium above the market price without the prior consent of shareholders.<sup>10</sup> Repurchases offered to all shareholders on an equal basis and repurchases made in the open market are routinely exempt from the restrictions imposed by the amendment. In some cases, "long-term" shareholders are also exempt.<sup>11</sup>

Although it is not clear that an antigreenmail amendment reduces the likelihood of a takeover, these amendments do play an important role in the adoption of other antitakeover amendments. One function of the antigreenmail amendment is to hide substantive antitakeover provisions. An example is the Diamond Shamrock proxy statement of April 12, 1985, which requests shareholder approval of an agenda item "... to deter greenmail and other self-dealing

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<sup>9</sup>Pound (1987) notes that the procedural requirements in fair-price amendments may impose a heavy cost on potential bidders.

<sup>10</sup>Dann and DeAngelo (1983) and Bradley and Wakeman (1983) examine the impact of targeted repurchases on shareholder wealth.

<sup>11</sup>Gilson (1988) describes the structure of antigreenmail amendments.

transactions, as discussed in the proxy statement." Inspection of the proxy reveals that the self-dealing transactions include all mergers, consolidations, and recapitalizations of the corporation that transpire when a single stockholder owns more than 5 percent of the voting stock of the corporation. The deterrent that shareholders are asked to approve is disenfranchisement of the blockholder: The approval of either a majority of the shareholders other than the 5 percent blockholder, or a majority of the disinterested directors is required to effect any of the transactions deemed to be self-dealing. Moreover, disinterested directors are defined as those not affiliated with the blockholder, who is therefore precluded from either voting his shares in favor of a merger, or having his representative on the board of directors participate in the decision-making process.<sup>12</sup>

A second type of hidden amendment is unrelated to the adoption of an antigreenmail provision. These amendments ask shareholders to approve reincorporation in the state of Delaware. Substantial antitakeover provisions not implied by the act of reincorporation are included in the agenda item but not described in the notice of

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<sup>12</sup>If  $B$  is the number of shares owned by the blockholder and  $\alpha$  is the fraction of votes required for approval, the amendment discussed in the text increases the votes required for passage whenever  $B > 2\alpha - 1$ . The amendment is always binding when simple majority voting is in effect. When  $\alpha = 0.75$ , the amendment does not become effective until the blockholder acquires 50 percent of the shares. One firm in our sample addressed this loophole with another provision that calls for cumulative voting when the beneficial ownership of a blockholder reaches 30 percent of the outstanding votes. The structure of this amendment is similar to that of the antitakeover law recently enacted in the state of Pennsylvania.

annual meeting. These observations may be contrasted with other cases involving both reincorporation in Delaware and the adoption of additional antitakeover provisions that are not classified as hidden. In those cases, the presence of the antitakeover amendments is disclosed in the notice of annual meeting. Descriptions of the eight cases of hidden amendments are presented in table 2.

A second case of strategic behavior involving antigreenmail amendments is the bundling of agenda items that shareholders presumably favor with agenda items they might be predisposed to reject. The advantage realized by bundling is illustrated in figure 1. Suppose that one agenda item has a wealth effect of  $w_1$  and a second has a wealth effect of  $w_2$ . When shareholders vote separately on the two items, both are approved only in the case where  $w_1 > 0$  and  $w_2 > 0$ . This corresponds to the shaded region in the figure. If, however, shareholders are asked to vote on the package, they approve both amendments in all cases where  $w_1 + w_2 > 0$ . The marginal impact of bundling is that section of the half plane to the right of the line  $w_1 + w_2 = 0$  which is not shaded.

We examine bundling in the context of the antigreenmail amendment.<sup>13</sup> If these amendments are likely to be approved by

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<sup>13</sup>A prominent example of bundling is provided by a case that is not in our sample, which does not involve an antigreenmail amendment. In December of 1988, Inco of Canada asked shareholders to approve a single agenda item authorizing a "poison-pill" rights plan and a special dividend of \$10 per share (Wall Street Journal, December 12, 1988). The packaging of these provisions caused such an uproar that the board of directors agreed to a second nonbinding vote on the poison-pill provision. The amendment passed the second test as well.

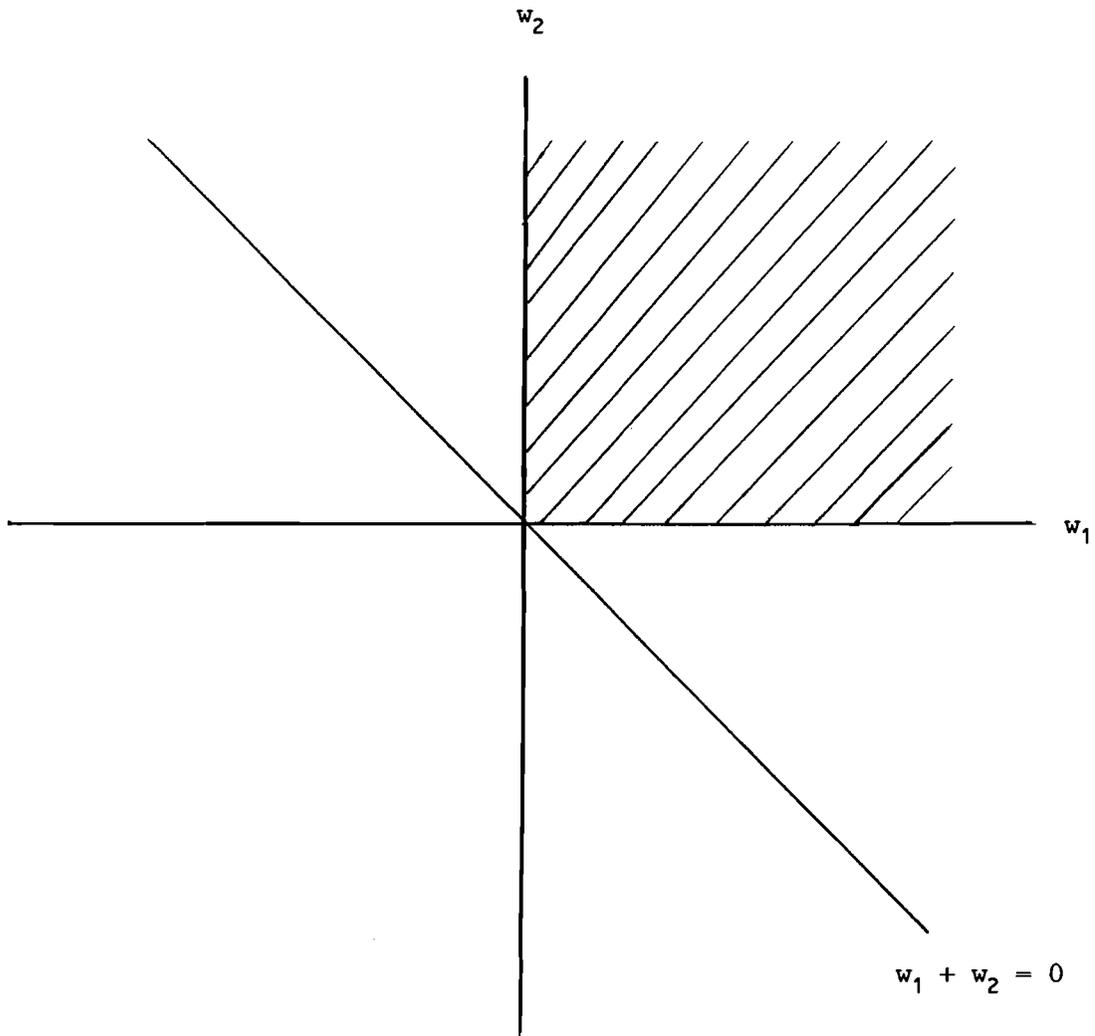
Table 2

Description of eight hidden antitakeover amendments from a sample of proxy statements for 197 NYSE listed firms that proposed antitakeover amendments during 1984-1985.

<u>Firm</u>	<u>Description of amendment</u>
Atlantic Richfield Co.	Agenda item is labeled as reincorporation in Delaware. Additional provisions that are not described in the notice of annual meeting: directors may be removed only by a two-thirds vote of shareholders, shareholders may no longer call special meetings, shareholders may not propose charter amendments.
Bausch & Lomb Inc.	Effect of the antigreenmail amendment is to disenfranchise the blockholder.
Diamond Shamrock Corp.	Effect of the antigreenmail amendment is to disenfranchise the blockholder. Other provisions attached to a separate agenda item that affects a classified board: 80 percent vote to remove directors, incumbent directors may be removed only by a majority of the continuing directors, special meetings may be called only by the chairman or a majority of the board, stockholders must provide advance notice to propose business at meetings or nominate candidates for the board, and cumulative voting is in effect if any shareholder owns 30 percent of the voting shares.
Eastern Gas & Fuel Assoc.	Effect of the antigreenmail amendment is to disenfranchise the blockholder. Other provisions attached to a separate agenda item that affects a classified board: vacancies are to be filled by incumbents, 80 percent vote to remove directors, shareholders must notify the board of nominees 45 days before a meeting.
Genisco Technology Corp.	Agenda item that is labeled as reincorporation in Delaware. The agenda item also includes a fair price/supermajority provision, the elimination of shareholder rights to call a special meeting, and limitations on the right to inspect shareholder lists.
Gould	Effect of the antigreenmail amendment is to disenfranchise the blockholder.
Holiday Inns Inc.	Agenda item #1 is labeled as reincorporation in Delaware. This implies that cumulative voting is eliminated and directors may be removed only for cause. The same agenda item requests the approval of fair price/supermajority, director entrenchment, and antigreenmail provisions.
Waste Management Inc.	Effect of the antigreenmail amendment is to disenfranchise the blockholder.

Figure 1

The effect of bundling two proposals as a single agenda item.  $w_i$  represents the wealth effect of proposal  $i$ . Agenda with wealth effects in the shaded region are acceptable if the items are considered separately. Agenda with wealth effects to the right of  $w_1 + w_2 = 0$  are acceptable if the items are combined.



shareholders who oppose other antitakeover amendments, then managers may be able to implement an antitakeover amendment by offering the two charter amendments as a package. This leads to a joint hypothesis: antigreenmail amendments have a non-negative impact on the wealth of shareholders, antitakeover amendments decrease shareholder wealth, and bundling induces the acceptance of an antitakeover amendment that would otherwise be rejected. Note that there is a distinction between hidden charter amendments and charter amendments that are bundled with antigreenmail amendments. In the latter case, the companion amendment is visible, while in the former case it is not.

The last type of antitakeover amendment that we consider is blank-check preferred stock. These charter amendments authorize the issuance of stock with voting rights that may be specified by the board of directors at the date of issue. We do not treat preferred stock issues where the voting rights are fixed as blank-check authorizations. This distinguishes our sample from those considered by some previous authors.<sup>14</sup>

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<sup>14</sup>The utility of this type of amendment in defending against a hostile takeover is currently ambiguous. In July 1988, the Securities and Exchange Commission (SEC) adopted rule 19c-4 under the 1934 Securities Exchange Act, which prohibits a stock exchange from listing the stock of a company that takes any action that diminishes the voting rights of existing shareholders. The rule states that "... any issuance ... or any other type of distribution of stock in which the securities issued have voting rights greater than the per share voting rights of any outstanding class of the common stock of the issuer..." is presumed to be disenfranchising. This would seem to apply to blank-check preferred stock, although most rulings issued by the stock exchanges thus far have concerned dual class ownership. The SEC rule was struck down by an appeals court in June 1990. In any event, amendments authorizing blank-check

### 2.3 Compensation and Ownership

In the remaining part of section 2, we report summary statistics for 197 firms that proposed some sort of antitakeover amendment, and for 148 firms that did not propose antitakeover amendments. Ownership data, except where otherwise noted, are taken from the proxy statement and SEC 10K filings.

Summary statistics for the compensation of directors and officers, and ownership by those individuals, appear in table 3. The total equity interest of an officer or director is calculated using beneficial ownership of common shares and the stock price outstanding at the end of the month preceding the proxy mailing date. Beneficial ownership includes direct ownership, indirect ownership through family members, trusts or partnerships, and contingent ownership in the form of stock options that may be exercised within 60 days.<sup>15</sup> Beneficial ownership of officers and directors as a group, corrected to eliminate the double counting of shares owned jointly, is reported in the proxy statement.

The fraction of voting rights held by officers and directors is calculated by subtracting from beneficial ownership those voting rights attributable to contingent ownership and by adding voting rights attached to other securities such as preferred stock. This

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preferred stock clearly had the potential to serve as a useful takeover defense at the time of proposal.

<sup>15</sup>On some proxy statements, the officers of the corporation list shares "...deemed beneficially owned by the SEC, to which beneficial ownership is disclaimed...." We included these shares in beneficial ownership for all firms in an attempt to standardize the measurement of ownership.

Table 3

Summary statistics for ownership by officers and directors and their compensation in a sample of 197 NYSE listed firms offering antitakeover charter amendments during 1984-1985, and a control sample of 148 NYSE listed firms that do not offer antitakeover charter amendments during the same period. All data are from the proxy statement and 10K filings.

## Ownership and compensation for chief executive officers

	Amendment sample <sup>1</sup>			Control sample <sup>2</sup>		
	Mean	Median	$\sigma$ <sup>3</sup>	Mean	Median	$\sigma$
Equity stake in millions of dollars	12.86	2.39	49.90	19.62	2.41	52.34
Compensation in millions of dollars	0.60	0.45	0.71	0.49	0.36	0.64
Compensation as a percentage of firm value	0.20	0.08	0.34	0.55	0.13	3.26
Ratio of equity to compensation	2.75	0.50	9.35	5.14	0.60	13.16
Percentage of voting rights	2.54	0.28	5.24	7.15	0.80	13.73

## Ownership and compensation for all directors and officers as a group

	Amendment sample			Control sample		
	Mean	Median	$\sigma$	Mean	Median	$\sigma$
Equity stake in millions of dollars	57.89	17.93	128.50	45.13	17.26	75.95
Compensation in millions of dollars	3.19	2.52	2.40	2.29	1.93	1.52
Compensation as a percentage of firm value	0.83	0.46	1.04	1.26	0.66	1.58
Ratio of equity to compensation	2.16	0.70	4.14	2.27	0.90	3.51
Percentage of voting rights	8.03	2.97	9.71	14.68	6.26	18.38

<sup>1</sup>The amendment sample consists of all observations in table 1 for which an antitakeover charter amendment is found on the proxy statement, including those firms in the random sample that satisfy this criterion.

<sup>2</sup>The control sample consists of all observations contained in table 1 for which no antitakeover charter amendments are found on the proxy statement.

<sup>3</sup>Sample standard deviation.

provides a rough measure of the votes that we might expect the officers and directors to control. The measure is less than exact because of the ambiguity introduced by including indirect ownership.

Direct compensation for the chief executive and for all officers and directors as a group is reported on the proxy statement. This does not include compensation realized through dividends or the exercise of stock options, which may be substantial. The ratio of equity to compensation is calculated using direct compensation and equity, as reported above. In many cases, the number of individuals covered in the report of compensation paid to all officers and directors is different from the number of individuals covered in the report of beneficial ownership by officers and directors. The economic meaning of these statistics, especially the ratio, is therefore less clear for officers and directors as a group than for the chief executive. Moreover, the use of these variables in a statistical model is likely to be associated with an errors-in-variables problem.

The ownership structure of firms that propose amendments is contrasted with the ownership structure of the control group in table 4. At firms that adopt amendments, both the chief executive officer and all officers and directors as a group earn greater direct compensation than their counterparts at firms that do not adopt amendments. The dollar value of equity investment by these parties is not, however, significantly different for the two samples, implying that the ratio of equity to compensation tends to

Table 4

Differences in ownership and compensation for officers and directors between a sample of 197 NYSE listed firms proposing charter amendments during 1984-1985 and a sample of 148 NYSE listed firms that do not propose charter amendments during the same period. Each test statistic is calculated by subtracting the sample moment for the control group from the corresponding sample moment for the group of firms offering antitakeover amendments. All data are from the proxy statement and 10K filings.

Differences in ownership and compensation  
for chief executive officers

	Mean	t statistic <sup>1</sup>	Rank statistic <sup>2</sup>	Median	$\chi^2$ statistic
Equity stake in millions of dollars	-6.77	-1.22	-0.22	-0.01	0.00
Compensation in millions of dollars	0.11	1.47	3.29*	0.08	5.95*
Compensation as a percentage of firm value	-0.35	-1.51	-3.03*	-0.05	10.37*
Ratio of equity to compensation	-2.40	-1.99	-1.13	-0.10	0.09
Percentage of voting rights	-4.61	-4.32*	-3.46*	-0.52	7.57*

Differences in ownership and compensation  
for all officers and directors

	Mean	t statistic	Rank statistic	Median	$\chi^2$ statistic
Equity stake in millions of dollars	12.76	1.07	0.75	0.67	0.07
Compensation in millions of dollars	0.90	4.02*	3.53*	0.59	8.27*
Compensation as a percentage of firm value	-0.43	-3.03*	-3.10*	-0.20	3.65
Ratio of equity to compensation	-0.10	-0.25	-0.85	-0.20	1.29
Percentage of voting rights	-6.65	-4.33*	-3.37*	-3.29	5.51

<sup>1</sup>A \* indicates that a test statistic is significantly different from zero at the 1 percent level of significance.

<sup>2</sup>The distribution of the nonparametric rank statistic is approximately normal in large samples.

be lower at firms enacting amendments. Managers at firms adopting charter amendments hold a smaller fraction of the outstanding voting securities issued by the firm and realize a lesser fraction of firm value as compensation. These features of ownership structure reflect the fact that firms adopting amendments tend to be larger, despite our attempt to control this feature of the data in our sample design.<sup>16</sup>

We also note a contrast between these data and statistics concerning ownership by the board of directors at Fortune 500 firms as reported by Morck, Shleifer, and Vishny (1988). In the sample of 371 firms examined by these authors, mean ownership by directors of the corporation is 10.6 percent, while median ownership is 3.4 percent. These magnitudes are similar to those that we report for ownership by all officers and directors at firms offering charter amendments, and less than the comparable statistics for our control firms. Our statistics are not directly comparable to those reported by Morck et al., since we use ownership by all officers and directors as reported on the proxy, while they do not include ownership by officers who are not directors. Inspection of our

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<sup>16</sup>Firms in the random sample that propose amendments tend to be larger than firms in the random sample that do not propose amendments. When we constrain the sample to include only matched pairs where the equity value of the firm in the random sample differs from the equity value of the firm proposing an amendment by less than 20 percent, the sample size is reduced by nearly two-thirds to a total of 122 firms, and there is still a substantial size difference between firms that propose amendments and firms that do not. None of the estimated relationships reported here is changed by this selection criterion, although most differences become statistically insignificant. An appendix containing versions of tables 1-11 for the smaller sample is available from the authors upon request.

sample suggests, however, that the impact of ownership by these individuals is likely to be slight.

#### 2.4 Block Ownership

We recorded ownership by 5 percent blockholders as reported in the proxy statement, and checked this against Spectrum 5.<sup>17</sup> We also recognize the distinction between beneficial ownership and the voting rights that are actually controlled by an investor. Institutional investors are required by SEC regulations to report shares as being beneficially owned when those shares are held for the account of clients who control the voting rights attached to the shares. In many cases, investors who are 5 percent blockholders on the basis of their beneficial interest do not actually enjoy the right to vote any of those shares. As a consequence, the use of beneficial ownership data as an explanatory variable in cross-sectional regression models of voting behavior may induce a serious errors-in-variables problem. We attempt to control this problem by recording voting and disposition rights, as well as beneficial interest for 5 percent blockholders. The

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<sup>17</sup>Spectrum 5 is published by CDA Investment Technologies using data from 13G, 13D and 14D-1 filings at the SEC. Comparison of the series from these two sources revealed a significant number of discrepancies. We attempted to reconcile these by consulting the Wall Street Journal Index and related stories in the Wall Street Journal around the proxy mailing date. The data from the proxy usually appeared to be more reliable.

statistics in the table pertain to those shares for which a blockholder actually controls the right to vote the shares.<sup>18</sup>

Summary statistics for block ownership, institutional ownership, and firm size are presented in table 5. The definition of most of these variables is straightforward. An outside director is any director who is not also an officer of the corporation. We deemed an institutional investor to be affiliated with the firm issuing a proxy statement, and therefore not independent of that firm, if we determined either that the firm has a client relationship with the institution (as in the case of a bank), or that an officer of the corporation is described in the proxy statement as being an officer or trustee of the institutional investor. Affiliated investment plans include employee stock ownership plans, payroll stock ownership plans, and all other affiliated investment plans. In addition, we report institutional ownership from The Standard & Poor's Stock Guide during the month preceding the proxy mailing, and firm size, as measured by the total value of outstanding equity.

A notable feature of the table is that median block ownership is zero in every category. Although the evidence presented below indicates that block ownership plays a significant role at the

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<sup>18</sup>Specifically, the statistics refer to the shares for which the individual or group enjoys beneficial ownership and at least shared voting power. Mean beneficial ownership is roughly double mean voting power for institutional blockholders at the 345 firms in our sample. In contrast, that same difference is less than 2 percent for chief executives. There is no apparent difference in the relationship between voting rights and shares of beneficial interest across the amendment sample and control sample.

Table 5

Summary statistics for block ownership, institutional ownership, and firm size for a sample of 197 NYSE listed firms offering antitakeover charter amendments during 1984-1985, and a control sample of 148 NYSE listed firms that do not offer charter amendments during the same period.

	Block ownership <sup>1</sup>					
	Amendment sample <sup>2</sup>			Control sample <sup>3</sup>		
	Mean	Median	$\sigma$ <sup>4</sup>	Mean	Median	$\sigma$
All officers and directors	4.72	0.00	9.87	9.45	0.00	16.88
Outside directors <sup>5</sup>	0.89	0.00	4.27	2.82	0.00	8.58
All institutions	2.34	0.00	4.89	3.09	0.00	5.48
Independent institutions <sup>6</sup>	2.11	0.00	4.57	2.76	0.00	5.30
Affiliated investment plans <sup>7</sup>	1.71	0.00	5.15	1.01	0.00	3.06
	Amendment sample			Control sample		
	Mean	Median	$\sigma$	Mean	Median	$\sigma$
Institutional ownership <sup>8</sup>	41.73	43.90	17.93	41.23	34.20	59.23
Outstanding equity in hundreds of millions of dollars	13.03	5.99	20.79	6.40	2.81	11.54

<sup>1</sup>All block ownership data are from the proxy statement and 10K filings, and include only those shares for which the individual or group enjoys either shared voting power or sole voting power.

<sup>2</sup>The amendment sample consists of all observations in table 1 for which a charter amendment is found on the proxy statement, including those firms in the random sample that satisfy this criterion.

<sup>3</sup>The control sample consists of all observations contained in table 1 for which no charter amendments are found on the proxy statement.

<sup>4</sup>Sample standard deviation.

<sup>5</sup>Outside directors are directors who are not also officers of the corporation.

<sup>6</sup>Independent institutions have neither an identifiable client relationship with the firm that proposes an antitakeover amendment, nor any shared officers or directors.

<sup>7</sup>Includes employee stock ownership plans, payroll stock ownership plans, and thrift plans.

<sup>8</sup>Institutional ownership data are from the Standard & Poor's Stock Guide.

margin, there are no 5 percent blockholders for more than half of the firms. One explanation is the significant size of a 5 percent equity stake, which requires an investment of \$15 million at the median firm in the control sample, and an investment of \$30 million at the median firm in the amendment sample.

Summary statistics for differences in these variables are presented in table 6. Point estimates suggest that all types of blockholders, with the exception of affiliated investment plans, are less influential at firms that implement antitakeover amendments. The data also reveal that institutional ownership tends to be greater at firms that implement antitakeover amendments, and that these firms tend to be larger.

## 2.5 Earnings Profiles

The evidence presented in Morck, Shleifer, and Vishny (1989) suggests that earnings history and expectations of future earnings might influence the decision to adopt an antitakeover provision. We constructed an earnings profile of each firm in the sample, consisting of the yearly change in the logarithm of earnings, beginning two years prior to the year in which the amendment was proposed and ending two years after adoption. We observe no significant differences in these profiles across the two samples.

Table 6

Differences in block ownership, institutional ownership, and firm size between a sample of 197 NYSE listed firms proposing charter amendments during 1984-1985 and a sample of 148 NYSE listed firms that do not propose charter amendments during the same period. Each test statistic is calculated by subtracting the sample moment for the control group from the corresponding sample moment for the group of firms offering antitakeover amendments.

	Block ownership <sup>1</sup>				
	Mean	t statistic <sup>2</sup>	Rank statistic <sup>3</sup>	Median	$\chi^2$ statistic
All officers and directors	-4.74	-3.27*	-2.63*	0.00	5.25*
Outside directors	-1.93	-2.73*	-2.25*	0.00	4.67*
All institutions	-0.75	-1.33	-1.10	0.00	0.54
Independent institutions	-0.66	-1.23	-0.74	0.00	0.12
Affiliated investment plans	0.70	1.47	1.11	0.00	1.14

	Institutional ownership <sup>4</sup>				
	Mean	t statistic	Rank statistic	Median	$\chi^2$ statistic
Institutional ownership <sup>4</sup>	0.50	0.11	2.98*	9.70	7.74*
Outstanding equity in hundreds of millions of dollars	6.55	3.45*	4.04*	3.18	10.96*

<sup>1</sup>All block ownership data are from the proxy statement and SEC form 10K filings, and include only those shares for which the individual or group enjoys either shared voting power or sole voting power.

<sup>2</sup>A \* indicates that a test statistic is significantly different from zero at the 5 percent level of significance.

<sup>3</sup>The distribution of the nonparametric rank statistic is approximately normal in large samples.

<sup>4</sup>Institutional ownership data are from the Standard & Poor's Stock Guide.

## 2.6 Wealth Effects

Summary statistics for announcement returns realized by portfolios corresponding to different proxy agenda, around the proxy mailing date, are presented in table 7.<sup>19</sup> All returns are expressed as a percentage of firm value. Calculations are based on the market model, with the CRSP Equally Weighted Index serving as the market proxy and days -170 through -21 used for estimation. Statistics based on the Standard & Poor's Composite index rather than the CRSP Equally Weighted Index are also reported to facilitate comparison with Jarrell and Poulsen's results and to assure the reader that our conclusions are not sensitive to this feature of the estimation procedure.

The magnitude of wealth effects associated with the proposal of antitakeover amendments is generally quite small. Point estimates in the [-1,1] window are positive for a number of portfolios. The null hypothesis of zero cannot be rejected in any

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<sup>19</sup>If the outcome of voting is a foregone conclusion, the wealth effects of proposed changes in corporate policy should be reflected in share prices when the proxy material becomes public. Bhagat (1983) and Bhagat and Brickley (1984) find that information on events noted in the proxy statement is impounded in share prices when the proxies are mailed. Larcker (1983) finds a significant market reaction on the day the SEC receives the proxy -- the SEC "stamp date." Brickley, Bhagat, and Lease (1985) find that proxy date precedes the SEC stamp date by an average of 3.2 days (median = 3.0 days). Linn and McConnell (1983) note that for some firms, the information in the proxy statement is released around the time of the board meeting rather than on the proxy mailing date.

Table 7

Summary statistics for announcement returns realized by a sample of 191 NYSE listed firms offering antitakeover amendments during 1984-1985 and announcement returns realized by a control portfolio of 141 NYSE listed firms selected on the basis of size and industry. All returns are expressed as percentage of firm value. Day 0 corresponds to the proxy mailing date.

Announcement returns for days [-1,1] using the CRSP Equally Weighted Index as the market index

Portfolio	Mean	Median	Standard deviation	z-statistic <sup>1</sup>	Sample size <sup>2</sup>	Number positive <sup>3</sup>
All returns	0.35	0.16	4.05	2.31	332	181
Control	0.94	0.62	4.35	4.11	141	88*
All amendments	-0.09	-0.11	3.77	-0.48	191	93
Entrench board	0.09	-0.13	3.22	0.06	119	56
Fair price	0.11	-0.32	3.40	0.42	141	67
Blank check	-0.05	-0.60	3.23	-0.06	36	16
Antigreenmail	-0.02	0.16	5.74	-0.09	44	23
Bundled agenda	0.96	-0.32	4.85	1.41	23	12
Hidden amendment	0.96	0.14	4.14	1.07	8	5

Announcement returns for days [-1,1] using the Standard & Poor's Composite as the market index

Portfolio	Mean	Median	Standard deviation	z-statistic	Sample size	Number positive
All returns	0.25	0.02	4.06	1.70	332	169
Control	0.84	0.46	4.36	3.68	141	84*
All amendments	-0.18	-0.32	3.78	-0.92	191	85
Entrench board	0.06	-0.38	3.34	-0.11	119	55
Fair price	0.05	-0.25	3.39	0.17	141	64
Blank check	-0.13	-0.58	3.26	-0.22	36	15
Antigreenmail	-0.14	-0.46	5.86	-0.33	44	20
Bundled agenda	0.86	-0.46	5.04	1.25	23	12
Hidden amendment	0.72	-0.27	4.38	0.86	8	4

Announcement returns for days [-20,10] using the Standard & Poor's Composite as the market index

Portfolio	Mean	Median	Standard deviation	z-statistic	Sample size	Number positive
All returns	0.23	-0.03	11.32	0.96	332	164
Control	0.64	0.14	12.40	1.48	141	72
All amendments	-0.08	-0.32	10.47	-0.01	191	92
Entrench board	-0.24	-0.32	10.19	0.34	119	58
Fair price	-0.00	-0.78	10.88	0.26	141	68
Blank check	-2.17	-1.73	9.22	-1.22	36	12*
Antigreenmail	-0.50	-2.51	12.34	-0.48	44	20
Bundled agenda	0.33	-4.41	13.93	0.09	23	10
Hidden amendment	2.49	0.81	10.81	0.32	8	5

<sup>1</sup>Constructed using standardized returns. See Dodd and Warner (1983) for the definition of this statistic.

<sup>2</sup>Thirteen of the 345 firms in the sample had missing returns.

<sup>3</sup>A \* indicates that the null hypothesis of a mean return equal to zero is rejected at the 5 percent level of significance in a two-tailed test.

case. None of these results conflicts with those reported by previous authors.<sup>20</sup>

The first two lines of each panel in table 7 suggest an explanation of the observed returns that is consistent with the conjecture that antitakeover amendments decrease shareholder wealth.<sup>21</sup> The portfolio of 141 proxy statements where there is no antitakeover amendment on the proxy agenda realizes a positive announcement return that is statistically different from zero at the 1 percent level. The portfolio corresponding to the random sample of proxy statements also realizes a statistically significant positive return.<sup>22</sup> If the potential announcement of an antitakeover amendment is associated with increased risk that is priced by the market, then the portfolio of all stocks subject to that announcement risk will realize a positive expected return.<sup>23</sup> At announcement, a favorable resolution of uncertainty is associated with a positive announcement effect. An unfavorable resolution is associated with a lower return, which may still be positive in absolute value. If we accept this explanation, the

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<sup>20</sup>Jarrell and Poulsen report announcement effects that are not significantly different from zero in short return windows. In the longer return window, the discrepancy between our results and theirs may be accounted for by the larger size of their sample.

<sup>21</sup>Miller and Scholes (1982, p. 1126) note that "... there may be an important clue in knowing that the dogs did not bark!"

<sup>22</sup>These results contrast with those reported by Brickley (1986), who finds no statistically significant effect at proxy mailing for a random sample of firms during 1978-1982.

<sup>23</sup>Kalay and Loewenstein (1985) make a similar observation concerning dividend announcements.

non-negative return realized by portfolios that contain antitakeover amendments represents the combined effect of a positive reward for risk and a negative wealth effect from the antitakeover amendment.

A crude test of this hypothesis is presented in table 8, where the returns on different portfolios of antitakeover amendments are contrasted with the return on the portfolio of clean proxy statements. In every case, the point estimate indicates that one does better by failing to announce an antitakeover amendment than by announcing an amendment. In the  $[-1,1]$  window, the parametric z-statistic rejects the null of equal mean performance at the 1 percent level of significance for every portfolio of antitakeover amendments. The nonparametric rank statistic rejects the null for the portfolio of all antitakeover amendments. The null of equal median performance is rejected for the portfolios of all antitakeover amendments, amendments that entrench the board, and fair-price amendments.<sup>24</sup>

In the longer return window examined by Jarrell and Poulsen, the null of equal mean performance is rejected at the 5 percent level only in the case of the portfolio corresponding to the authorization of blank-check preferred stock. While these results do not conflict with those reported by Jarrell and Poulsen in a

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<sup>24</sup>The parametric statistic is based on the maintained hypothesis of a mean shift. We tested for a shift in variance and failed to reject the null of equal variance for each of the portfolios described in table 8.

Table 8

Difference between announcement returns realized by a sample of 191 NYSE listed firms offering antitakeover amendments during 1984-1985 and announcement returns realized by a control portfolio of 141 NYSE listed firms selected on the basis of size and industry. Each difference is calculated by subtracting the return realized by the control portfolio from the return realized by the portfolio of firms offering antitakeover amendments of the specified type. All returns are expressed as a percentage of firm value. Day 0 corresponds to the proxy mailing date.

Difference in announcement returns for days [-1,1] using the CRSP Equally Weighted Index as the market index

Portfolio	Mean	z statistic <sup>1</sup>	Rank statistic	Median	$\chi^2$ statistic
All amendments	-1.03	-3.05*	-2.21*	-0.73	5.44*
Entrench board	-0.85	-2.99*	-1.99*	-0.75	6.83*
Fair price	-0.83	-2.62*	-1.91	-0.94	5.12*
Blank check	-0.99	-3.70*	-1.53	-1.22	3.63
Antigreenmail	-0.96	-3.63*	-0.76	-0.46	1.16
Bundled agenda	0.02	-3.29*	-0.04	-0.94	0.05
Hidden amendment	0.01	-3.75*	0.28	-0.48	0.00

Difference in announcement returns for days [-1,1] using the Standard & Poor's Composite as the market index

Portfolio	Mean	z statistic	Rank statistic	Median	$\chi^2$ statistic
All amendments	-1.02	-3.09*	-2.09*	-0.78	6.52*
Entrench board	-0.77	-2.78*	-1.64	-0.84	4.48*
Fair price	-0.79	-2.48*	-1.68	-0.71	5.12*
Blank check	-0.96	-3.38*	-1.33	-1.03	2.35
Antigreenmail	-0.98	-3.37*	-0.88	-0.91	1.16
Bundled agenda	0.02	-2.94*	-0.13	-0.91	0.05
Hidden amendment	-0.12	-3.38*	0.40	-0.72	0.00

Difference in announcement returns for days [-20,10] using the Standard & Poor's Composite as the market index

Portfolio	Mean	z statistic	Rank statistic	Median	$\chi^2$ statistic
All amendments	-0.72	-0.96	-0.09	-0.46	0.31
Entrench board	-0.88	-0.86	-0.03	-0.46	0.14
Fair price	-0.64	-0.86	-0.11	-0.92	0.35
Blank check	-2.81	-1.87*	-1.01	-1.87	1.34
Antigreenmail	-1.14	-1.52	-0.57	-2.65	0.54
Bundled agenda	-0.31	-1.34	-0.67	-4.55	0.46
Hidden amendment	1.84	-1.36	0.53	0.67	0.50

<sup>1</sup>A \* indicates that the test statistic rejects the null hypothesis of equal returns for the two portfolios at the 5 percent level of significance in a two-tailed test.

larger sample, they do indicate that the longer return window contains significant noise.<sup>25</sup>

The test statistics in table 8 suggest that the inference of a negative wealth effect is unlikely to be a consequence of sampling variation. The point estimates for the different portfolios do, however, ignore a substantial amount of sample information. Even if traders have no data about the identity of firms that will propose amendments other than ownership statistics (which seems unlikely), anticipation of the proxy agenda will contaminate announcement returns. More precise estimates of the wealth effects associated with the different types of amendments may be obtained from an estimator that incorporates available information about the likelihood of an announcement. Before turning to the construction of this estimator, we offer some evidence that is germane to our discussion of predictability.

## 2.7 Antitakeover Amendments Outside the Sample Period

Firms that did not enact antitakeover amendments during 1984 or 1985 may have enacted amendments either before or after the sample period. This raises the possibility that observed differences between firms that enact amendments and firms that do not enact amendments during our sample period are related to the timing of implementation rather than to any genuine difference between the two samples.

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<sup>25</sup>The results of Brown and Warner (1985) suggest that the noise in a 31-day window may have a substantial impact on test statistics.

The data in table 9, which describe the experience of sample firms with respect to antitakeover amendments outside the sample period, speak to this issue. The first panel of table 9 presents information for all firms in the sample drawn from proxy materials and the Investor Responsibility Research Center (1987) survey of antitakeover amendments implemented by Fortune 500 firms through the end of 1987. The second panel focuses on the Fortune 500, where our information is more precise.

The data in the table indicate that the events which transpired during the two years of our sample are representative of the experience of sample firms with respect to the implementation of antitakeover amendments. Firms that proposed amendments during 1984 or 1985 were much more likely to have an amendment in place by the end of 1987: The different experience during the sample period does not appear to be a matter of timing. Moreover, activity during the sample period seems to represent a genuine change in the status of sample firms with respect to takeover defenses, since our information indicates no significant difference in takeover defenses prior to the sample period.

### 3. Cross-Sectional Models

#### 3.1 An Estimator for Wealth Effects

It is well known that the anticipation of an event will contaminate announcement effects. When this occurs, consistent estimates of wealth effects are produced by estimators that incorporate the ex ante announcement probability. Malatesta and

Table 9

The experience with respect to charter amendments of a sample of 197 NYSE listed firms offering antitakeover charter amendments during 1984-1985, and a control sample of 148 NYSE listed firms that do not offer charter amendments during the same period.

	Full data set		
	Amendment sample	Control sample	$\chi^2$ statistic <sup>2</sup>
Known to have some antitakeover amendment by the end of 1987	197	27	248
Known to have some antitakeover amendment at the proxy mailing date	20	15	0.00
Sample size	197	148	
	Fortune 500		
	Amendment sample	Control sample	$\chi^2$ statistic
Known to have some antitakeover amendment by the end of 1987	84	24	59
Known to have some antitakeover amendment at the proxy mailing date	17	9	0.27
Sample size	84	54	

<sup>1</sup>All data are from the proxy statement, 10K filings, and Investor Responsibility Research Center (1987).

<sup>2</sup>The  $\chi^2$  statistics of 248 and 59 are significantly different from zero at 1 percent. Neither of the other statistics rejects the null of no difference for the two samples.

Thompson (1985) focus on a situation where the timing of announcements is uncertain, and simultaneously estimate the probability of an event and the wealth effect of the event from time series of stock returns. Acharya (1989) also considers situations in which timing is uncertain, but draws on the work of Heckman (1978) and extends the analysis to include instrumental variables that reflect cross-sectional variation in the likelihood of an announcement. We too draw upon Heckman's work, but focus on situations where the timing of an announcement is known with certainty. Instrumental variables are used to obtain consistent estimates of the prior probability of the event. Estimated wealth effects are then extracted from cross-sectional returns using a nonlinear estimator.<sup>26</sup>

We base our analysis on the following set of assumptions:

- (1) The timing of an event is known with certainty.
- (2) The value of the firm contingent upon the event is  $P_E$ , while the value of the firm in the absence of the event is  $P_{NE}$ .
- (3) The ex ante probability of the event contingent upon a vector  $x$  of firm characteristics is  $\pi(x)$ .
- (4) Risk-neutral pricing obtains in the market.

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<sup>26</sup>When the timing of the event is known, the probability of the event is zero during the period surrounding the announcement. Time series of stock prices do not have the informational content attributed to them in the estimators proposed by Acharya and Malatesta and Thompson, and using the estimator employed here increases efficiency. In addition, the use of cross-sectional models allows us to exploit some important statistical results due to White (1982) and Vuong (1989).

(5) The return observed when the event occurs is  $R_E$ , while a return of  $R_{NE}$  is observed when no event occurs.

Risk-neutral pricing implies that the price prior to the event is equal to the expected price at resolution, or  $P = \pi P_E + (1-\pi)P_{NE}$ . The returns observed are  $R_{NE} = (P_{NE} - P)/P$  when no event occurs and  $R_E = (P_E - P)/P$  when the event does occur. These depend on  $\pi$  through  $P$ . The statistic of interest is the economic impact of the event on shareholder wealth, which is  $(P_E - P_{NE})/P_{NE}$ . If  $P_E = \gamma P_{NE}$ , then it is straightforward to show that

$$R_{NE} = [\pi(1-\gamma)]/[\pi(\gamma-1)+1] \quad (1)$$

$$R_E = [(1-\pi)(\gamma-1)]/[\pi(\gamma-1)+1].$$

Observed returns are a nonlinear transformation of the probability that the event will occur and the true wealth effect. The estimate of  $\gamma$  implied by equation (1) is a weighted sum of observed returns, where the weights are inversely proportional to the probability of the realized outcome.

In the cross-sectional econometric model implied by equation (1), we assume that the wealth effect  $\gamma$  depends on the type of amendment but not on the firm that adopts it, while the probability of the event  $\pi$  is firm-specific. Estimates of  $\pi$  are obtained from a probit model where the dependent variable is the event and the independent variable is the vector of firm characteristics  $x$ . Estimation of the probit model by maximum likelihood yields a parameter estimate  $\beta$ . A consistent estimate of  $\pi(x)$  is provided by  $F(x\beta)$ , where  $F$  denotes the normal distribution function.

Substituting this estimate for  $\pi$  in (1) and estimating  $\gamma$  by nonlinear maximum likelihood yields a two-stage estimator  $\hat{\gamma}$ .

Two generalizations of this estimator are immediate and straightforward. The first involves multiple outcomes. If  $P_j$  is the value of the firm contingent on outcome  $j$  and we assume that  $P_j = \gamma_j P_1$  with  $\gamma_1 = 1$ , then it is straightforward to show that  $R_j = (\gamma_j - \pi \cdot \gamma) / \pi \cdot \gamma$  where  $\pi$  is the vector of probabilities and  $\gamma$  is the vector of wealth effects. Two-stage estimation involves recovering the probability vector  $\pi$  in the first stage, through multinomial probit or log-linear estimation, for example. These estimates are then used to extract the vector  $\hat{\gamma}$  from the cross-section of returns in the second stage.

This estimator may be used to represent the interaction of agenda items, as well as the interaction between agenda items and strategic behavior. The interaction of two agenda items is captured by estimating wealth effects  $\gamma_1$ ,  $\gamma_2$ , and  $\gamma_{12}$ , which occur with probabilities  $\pi_1(x)$ ,  $\pi_2(x)$ , and  $\pi_{12}(x)$ , respectively. The effects of strategic behavior are estimated by letting the wealth effect of an amendment and its associated probability be  $\gamma_1$ ,  $\pi_1(x)$  when strategic behavior is absent and  $\gamma_1^*$ ,  $\pi_1^*(x)$  when strategic behavior occurs.

A second generalization of (1) allows  $\gamma$  to be a function of  $x$ . This formulation permits wealth effects to depend on ownership structure. The special case  $\gamma(x) = \gamma$ , described above, occurs when the wealth effect of a change in governance is not a function of the characteristics of the firm that experiences the change.

Heckman (1978) shows that an econometric model with the general form  $\gamma(x)$  is identified by the nonlinearity in probit or logit even when all of the variables used to explain  $\pi(x)$  are also used to explain  $\gamma(x)$ .

Estimating any of these models with our choice-based sample requires a correction for sample selection bias. We employ the weighted maximum likelihood technique suggested by Manski and Lerman (1977), which is discussed in Amemiya (1985).<sup>27</sup> Let  $w$  be the fraction of firms that adopt an antitakeover amendment in a random sample, and  $\tilde{w}$  be the fraction of firms that adopt an amendment in the combined sample.<sup>28</sup> When estimating the model (1) with the biased sample, the log likelihood of each observation where an amendment is enacted is weighted by  $w/\tilde{w}$ , and the log likelihood of all other observations is weighted by  $(1-w)/(1-\tilde{w})$ . The weighting procedure is identical for models of the form  $\gamma = \gamma(x)$ . A model with multiple outcomes requires a set of weights  $w_i/\tilde{w}_i$  and  $(1-w_i)/(1-\tilde{w}_i)$ . We are unable to implement this model with our data, since some of the agenda items occur with either zero

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<sup>27</sup>Amemiya and Vuong (1987) demonstrate that the Manski-McFadden correction is more efficient than the Manski-Lerman correction employed here, and note that neither incorporates the improvements suggested by Cosslett (1981). We found the Manski-Lerman correction much more tractable for this estimation problem.

<sup>28</sup>In our data, these values are (14/162) and (197/345), respectively, for the portfolio of all antitakeover amendments. Different weights are applied to the portfolio of fair-price amendments and portfolio of amendments that entrench the board of directors.

frequency or very low frequency in the random sample. As a consequence, we limit our attention to the binary models.

### 3.2 Ownership Structure and the Agenda

The probit model used to estimate  $\pi(x)$  is of independent interest, since it provides an assessment of the relative importance of ownership characteristics in determining the proxy agenda. Weighted maximum-likelihood estimates of the model appear in table 10 for those agenda items that occur with sufficiently high frequency to permit estimation using the choice-based sample. In each case, the model is estimated using all observations for which either the specified amendment appears on the proxy or no amendment appears on the proxy. A constant term is included in every specification. Size and the ratio of equity to compensation variables are expressed in logarithmic form. The remaining variables, which measure the voting power of various parties, represent the fraction of the total outstanding voting rights for which the individual or group enjoys at least shared voting power. Several common themes emerge.

Variables representing the compensation of officers and directors (estimates are not reported) are econometrically irrelevant. This feature of the data persists across a wide number of compensation definitions. Nor does the ratio of equity to compensation, for either the chief executive officer (CEO) or all officers and directors as a group, have a significant impact on the likelihood that an antitakeover amendment will be proposed and

Table 10

Weighted probit analysis of the relationship between ownership structure and the proxy agenda for a sample of 345 NYSE listed firms. Table entries are estimated coefficients, with the absolute value of the robust t-statistic in parentheses.

Independent variable <sup>1</sup>	Dependent variable					
	All	All	Fair price	Fair price	Entrench board	Entrench board
Ratio of equity to compensation for CEO		0.04 (1.03)		0.04 (1.04)		0.04 (1.05)
Votes controlled by CEO	-2.45 (2.53)	-3.00 (2.68)	-2.08 (2.28)	-2.62 (2.44)	-2.50 (2.33)	-3.13 (2.52)
Ratio of equity to compensation for all officers and directors		0.06 (0.85)		0.07 (1.00)		0.02 (0.21)
Votes controlled by all officers and directors	-0.96 (1.01)	-1.53 (1.40)	-1.13 (1.14)	-1.76 (1.56)	-1.91 (1.73)	-2.13 (1.70)
Votes controlled by officers who are blockholders	1.23 (1.09)	1.33 (1.15)	1.29 (1.09)	1.37 (1.13)	2.17 (1.75)	2.21 (1.75)
Votes controlled by outside directors who are blockholders	-1.25 (1.19)	-1.23 (1.15)	-1.30 (1.21)	-1.30 (1.16)	-1.88 (1.37)	-1.90 (1.34)
Votes controlled by affiliated investment plans	3.01 (1.73)	3.22 (1.82)	3.63 (2.09)	3.84 (2.18)	4.83 (2.65)	4.93 (2.66)
Votes controlled by institutional blockholders	-0.63 (0.24)	-0.79 (0.30)	0.20 (0.08)	0.02 (0.01)	0.42 (0.15)	0.33 (0.11)
Votes controlled by independent institutions who are blockholders	0.27 (0.11)	0.54 (0.21)	-0.76 (0.29)	-0.47 (0.18)	-0.61 (0.22)	-0.42 (0.15)
Institutional ownership	-0.31 (1.22)	-0.41 (0.19)	-0.42 (1.27)	-0.57 (1.58)	-0.39 (1.20)	-0.47 (1.27)
Size	0.13 (2.44)	1.82 (0.07)	0.12 (2.09)	0.10 (1.62)	0.13 (2.09)	0.11 (1.76)
Number of observations	345	345	293	293	270	270
Lagrange Multiplier test: <sup>2</sup>						
For ownership variables	18.74	20.80	19.13	21.70	22.57	23.76
For instruments	25.19	29.38	24.69	28.88	22.42	31.55
Wald test: <sup>2</sup>						
For ownership variables	17183	26222	20293	25417	40503	47438
For instruments	17180	26216	20290	25413	40500	47430

<sup>1</sup>Size and equity-to-compensation ratios are in logs; all other variables are in levels. "Votes controlled by" indicates the fraction of voting securities in which the individual or group enjoys beneficial interest and at least shared voting power.

<sup>2</sup>The test statistic is distributed as  $\chi^2(q)$  under the null hypothesis of no joint explanatory power for the specified set of variables. The degrees of freedom  $q$  are equal to the number of variables included in the test. All of the Lagrange multiplier statistics reject the null at the 2 percent level. All of the Wald statistics reject the null at the 1 percent level.

implemented. We noted previously that all of these variables are likely to contain significant measurement error, and we therefore hesitate to ascribe any economic interpretation to these results.

The fraction of total votes controlled by the CEO is negatively related to the likelihood that an amendment will be proposed, as is the fraction of votes controlled by officers and directors, and the voting power of outside directors.<sup>29</sup> Ownership by these parties appears to be a deterrent to value-decreasing change. In contrast, there is a positive correlation between the likelihood of adoption and block holdings by both officers of the corporation and affiliated investment plans.

Inspection of the sample of 113 firms in the combined sample for which officers are also blockholders suggests an explanation of the first phenomenon. A large number of the blockholders in this group are members of the firms' founding families. In many cases, inspection of the proxy documents reveals that a relative of the blockholder is also an officer of the corporation. This profile of a blockholder is consistent with the characterization by Morck, Shleifer, and Vishny (1989), who note that the presence of a member of the founding family on the top management team has a negative impact on the likelihood of both a hostile takeover and top management turnover.

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<sup>29</sup>When the 18 firms excluded from the combined sample because of ownership by affiliated parties are included in this exercise, ownership by outside directors has a statistically significant deterrent effect.

The positive impact of ownership by affiliated investment plans on the likelihood that antitakeover amendments will appear on the proxy is striking. Both the magnitude of the estimated effect and the contrast with the effect of increased ownership by corporate insiders are significant. This block of votes has a very special feature: The individuals who own the cash flows are not necessarily the same individuals who exercise the voting rights.<sup>30</sup> When officers of the corporation control a block of votes and do not face the cost of value-decreasing change, their willingness to enact those changes is apparently quite different than in situations where they do bear that cost.

Ownership by institutional investors does not appear to have a substantial impact on the introduction of antitakeover amendments. Although the estimated coefficients are negative in the case of all institutional votes and in the case of voting blocks controlled by independent institutions, none of the estimates is statistically significant. Moreover, the magnitudes of estimated coefficients suggest that ownership by insiders or by other individuals with board representation has a much greater impact on the likelihood of adoption than does ownership by institutions, which are typically not represented on the board. These statements must, however, be qualified by the observation

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<sup>30</sup>The legal environment surrounding the voting of ESOP shares is discussed in section 4. Scholes and Wolfson (1990) argue that the main motivation for the growth of ESOPs is their utility in defending against hostile takeovers.

that the variables representing institutional voting power are likely to contain significant measurement error.<sup>31</sup>

Estimated coefficients are stable across the different type of charter amendments, consistently having the same sign and magnitude. This stability extends to different sets of regressors. Few of the estimated coefficients are significantly different from zero at high degrees of precision. (The voting power of CEOs and affiliated investment plans are notable exceptions.) But the Wald test and the Lagrange Multiplier test reject the null of no joint explanatory power at high levels of significance for both the set of ownership variables and the instrument set, which also includes the size variable and the constant term.<sup>32</sup> The latter result is worth keeping in mind, because Nelson and Startz (1990) have shown that the use of instruments with little or no joint explanatory power can lead to spurious inference in the second stage of an instrumental variables procedure.

### 3.3 Wealth Effects

Weighted maximum-likelihood estimates of the wealth effects associated with the different charter amendments are presented in table 11. Although the estimated coefficients are small (on the

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<sup>31</sup>Estimation of the model with beneficial ownership data yields similar conclusions.

<sup>32</sup>White (1982) shows that the Wald test and Lagrange Multiplier test based on the robust covariance matrix are consistent under certain types of misspecification that distort the distribution of the more common likelihood ratio statistic. This issue is discussed in greater detail in section 4.

Table 11

Point estimates of the wealth effects of antitakeover amendments obtained from a two-stage, instrumental variables estimator. Estimates are based on announcement returns for 191 NYSE listed firms offering antitakeover amendments during 1984-1985, and announcement returns for 141 NYSE listed firms that did not offer any type of antitakeover amendment during that same period. The probit models described in table 10 comprise the first step of the estimation procedure. Numbers in brackets denote the return window, with day zero corresponding to the proxy mailing date. All returns are percentages. Robust t-statistics for the null hypothesis of no wealth effect are in parentheses. All estimates are weighted to correct for sample selection bias.

	CRSP Equally Weighted Index		Standard & Poor's Composite			Wald statistic <sup>1</sup>	No. of obs <sup>2</sup>
	[-1,1]	[-1,0]	[-1,1]	[-1,0]	[-20,10]		
All amendments	-1.43 (-2.39)	-0.91 (-2.95)	-1.38 (-2.30)	-0.89 (-2.92)	-0.82 (-0.61)	1.70	332
Fair price and supermajority	-1.24 (-2.08)	-0.85 (-2.66)	-1.17 (-1.96)	-0.83 (-2.58)	-0.73 (-0.51)	1.86	282
Entrench the board of directors	-1.29 (-2.10)	-0.72 (-2.10)	-1.17 (-1.89)	-0.66 (-1.94)	-0.96 (-0.68)	1.00	260

<sup>1</sup> The Wald statistic is a test of the null hypothesis that wealth effects do not depend on ownership structure. The test statistic, which is calculated using the robust covariance matrix as in White (1982), is distributed  $\chi^2$  with eight degrees of freedom. Reported values, derived from the returns in days [-1,1], fail to reject the null hypothesis at conventional levels of significance. Similar results are obtained for the other portfolios.

<sup>2</sup> Number of observations in the sample used for estimation. Each sample is composed of all observations from the control portfolio and all observations for which the specified type of antitakeover amendment is offered, excluding those observations for which returns are missing.

order of 1 percent for all of the models), they are also precise and stable across different return windows and market indices. The only point estimates that are not significantly different from zero are those estimated with a 31-day window.

Comparison of these results with those of table 8 indicates that estimated wealth effects that incorporate announcement probabilities exceed estimates derived from simple two-way comparisons by roughly 50 percent. This is consistent with our conjecture that anticipation diminishes announcement effects. The estimated wealth effects presented in table 11 do share one property with the estimates in table 8. There is little variation in wealth effects across the different categories of antitakeover amendments. Jarrell and Poulsen's conclusion that fair-price amendments do not have a negative impact on shareholder wealth is not sustained once the sample selection bias that contaminates their estimates is corrected.

A Wald test based on the robust covariance matrix fails to reject the restriction  $\gamma(x) = \gamma$  for any of the models. This implies that no significant increase in explanatory power is achieved by allowing wealth effects to depend on ownership structure. The test statistics in the table are constructed using returns for  $[-1,1]$ . Tests based on other sets of returns yield similar conclusions.

### 3.4 Strategic Behavior

#### 3.4.1 Hidden Amendments

The small number of hidden charter amendments precludes estimation of a structural ownership model for this type of amendment. We can, however, compare ownership structure at firms that engage in this activity with ownership structure at other firms that offer antitakeover amendments. Ownership variables included in the econometric model of the proxy agenda are contrasted in table 12.

The data reveal a relationship between ownership structure at firms that enact hidden charter amendments and all other firms that enact charter amendments that is, in several respects, qualitatively similar to the one between ownership structure at all firms that enact charter amendments and ownership structure at firms that do not enact amendments. Corporate officers control a smaller fraction of the voting securities and hold fewer 5 percent blocks. Institutional ownership is greater, as is firm size. We find no significant differences in ownership by outside directors or affiliated investment plans.

These relationships suggest the following explanation of hidden amendments. Managers who enact these amendments have weak ownership positions that lead them to seek contractual protection against takeovers. They do not enjoy the support of strong affiliated investment plans that might allow them to implement a standard fair-price amendment or board entrenchment provision. In the absence of opposition from strong independent directors,

Table 12

A comparison of eight firms that offer hidden antitakeover amendments with other firms that offer antitakeover amendments. Each test statistic is calculated by subtracting the sample moment for the group offering antitakeover amendments from the corresponding sample moment for the group of firms offering hidden amendments.

## Voting power calculated with ownership data from the proxy statement

	<u>Mean</u>	<u>t statistic</u>	<u>Rank statistic<sup>1</sup></u>	<u>Median</u>	<u><math>\chi^2</math> statistic</u>
Votes controlled by CEO	-1.94	-1.08	-1.01	-0.19	0.95
Votes controlled by all directors and officers	-5.05	-1.53	-1.77	-2.72	1.08
Votes controlled by officers who are blockholders	-4.94	-1.47	-1.83	0.00	3.47
Votes controlled by independent directors who are blockholders	0.45	0.31	0.58	0.00	0.31
Votes controlled by affiliated investment plans	-1.06	-0.60	-0.49	0.00	0.18

## Other characteristics

	<u>Mean</u>	<u>t statistic</u>	<u>Rank statistic<sup>1</sup></u>	<u>Median</u>	<u><math>\chi^2</math> statistic</u>
Institutional ownership <sup>2</sup>	9.62	1.58	1.64	8.00	2.86
Outstanding equity in hundreds of millions of dollars	9.71	1.37	1.30	1.71	1.02

<sup>1</sup>The distribution of the nonparametric rank statistic is approximately normal.

<sup>2</sup>Institutional ownership data are from the Standard & Poor's Stock Guide.

corporate officers are free to pursue the strategic behavior--in the form of a hidden amendment--that appears to be an effective substitute for voting power.

#### 3.4.2 Bundled Agenda

Ownership characteristics of firms that bundle antitakeover amendments with antigreenmail amendments are contrasted with the ownership characteristics of other firms that offer antitakeover amendments in table 13. The relationships that we observe are roughly comparable to those observed in the case of the hidden charter amendments. Insiders at firms that offer bundled proxy agenda control fewer votes through direct ownership or affiliated investment plans, and are unlikely to be held in check by independent blockholders.

### 4. Discussion

#### 4.1 Sample Selection Bias and the Endogenous Proxy Agenda

The differences that we have documented between firms that do propose antitakeover amendments and firms that do not propose those amendments implies that a selection bias arises when only firms that actually enact amendments are used to study the causes and consequences of changes in corporate governance. The empirical relevance of this issue is illustrated by several recent studies. Consider, for example, the findings of Brickley, Lease, and Smith (1988), who examine the relationship between ownership structure and voting behavior in a truncated sample. These authors

Table 13

A comparison of 24 NYSE listed firms that offer antigreenmail amendments bundled with other charter amendments during 1984-1985 and other firms that offer antitakeover amendments. Each test statistic is calculated by subtracting the sample moment for the group offering antitakeover amendments from the corresponding sample moment for the group of firms offering bundled agenda.

Voting power calculated with ownership data from the proxy statement

	Mean	t statistic	Rank statistic <sup>1</sup>	Median	$\chi^2$ statistic
Votes controlled by CEO	-0.37	-0.32	-1.68	-0.22	2.77
Votes controlled by all directors and officers	-2.73	-1.29	-1.36	-1.86	0.81
Votes controlled by officers who are blockholders	-1.92	-0.89	-0.46	0.00	0.05
Votes controlled by independent directors who are blockholders	-1.02	-1.09	-1.38	0.00	1.93
Votes controlled by affiliated investment plans	-1.50	-1.34	-1.23	0.00	1.26

Other characteristics

	Mean	t statistic	Rank statistic	Median	$\chi^2$ statistic
Institutional ownership <sup>2</sup>	4.86	1.25	1.30	3.00	1.64
Outstanding equity in hundreds of millions of dollars	-1.29	-0.28	0.62	1.18	0.17

<sup>1</sup>The distribution of the nonparametric rank statistic is approximately normal.

<sup>2</sup>Institutional ownership data are from the Standard & Poor's Stock Guide.

report a positive correlation between both managerial ownership and the fraction of votes cast for an antitakeover amendment, and between institutional ownership and the fraction of votes cast against these amendments. Our evidence suggests that inferences drawn from these correlations are likely to be misleading. We find that increased voting power in the hands of corporate officers makes it less likely that shareholders will be confronted with an antitakeover proposal, while the managerial voting pattern documented in Brickley et al. indicates that increased managerial ownership will result in stronger support for those amendments that are proposed.

Since managerial support for an antitakeover amendment is irrelevant unless the amendment is actually proposed, the deterrent effect of managerial ownership is at least as important as managers' voting behavior in determining the circumstances under which an antitakeover amendment is likely to be enacted. A similar observation pertains to the apparent opposition of institutional investors to antitakeover amendments. We find the marginal impact of institutions on the proxy agenda to be quite weak. (This appears to be related to a lack of board representation.) The fact that institutional investors are motivated to vote against antitakeover amendments is irrelevant if proposed amendments are in fact adopted.

Selection bias is also an issue in studies of ex post performance. Pound (1987) examines the relationship between the adoption of an antitakeover amendment and the subsequent likelihood

of a takeover using a sample of firms that enact amendments and a control sample of firms that do not adopt amendments, but he does not account for self-selection. As a result, it is not possible to distinguish the impact of an antitakeover amendment from the characteristics of firms that adopt those amendments using his results. The negative correlation between the presence of an antitakeover amendment and the likelihood of a takeover documented in that study may indicate that managers who are successful in enacting amendments enjoy contractual protection against takeovers despite poor performance, or that those managers tend to outperform the market, making discipline inappropriate, or that firms adopting amendments tend to experience turnover initiated by the board of directors, which makes external discipline unnecessary.<sup>33</sup> The contrast between the conclusions suggested by the two-way comparisons in tables 4 and 6 and those suggested by the models described in table 10 indicates that this issue is unlikely to be moot.

A final example of the influence of selection bias involves the cross-sectional regression of abnormal returns on ownership characteristics. Results of this type are reported by Jarrell and Poulsen and, more recently, by Agrawal and Mandelker (1990). Both

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<sup>33</sup>Weisbach (1988) demonstrates that the presence of outside directors is associated with a positive correlation between management turnover and poor performance relative to other firms in the industry. Morck, Shleifer, and Vishny (1989) characterize takeovers as an alternative mechanism that comes into play when poor performance affects an entire industry and the board of directors fails to initiate changes in management or policy. These findings suggest a set of explanatory variables for studies of the type conducted by Pound.

sets of authors document a positive correlation between returns and institutional holdings at firms that adopt antitakeover amendments, using truncated samples. Jarrell and Poulsen also report greater-than-average managerial holdings at firms that adopt the type of amendments having the greatest negative effect on shareholder wealth.

Table 14 reports the results of estimating this type of model with our data. The regression described in panel A uses the entire sample. The results presented in panel B are based on a truncated sample similar to that used in the earlier studies. Neither specification involves a correction for selection bias. Estimated coefficients in panel B are consistent with results reported in the earlier studies.<sup>34</sup> We compare these results to those produced by our two-stage estimator, and provide evidence of misspecification in the truncated regression.

The likelihood ratio statistic in the last column of the table tests the explanatory power of the two-stage nonlinear model of wealth effects against the non-nested alternative of a linear regression on ownership characteristics, using the procedure described in Vuong (1989). The data fail to reject the null, indicating that the addition of eight parameters representing ownership and firm size to the estimating equation provides no

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<sup>34</sup>Differences in the values of coefficients are either not statistically significant or are attributable to a difference in the specification of the model. When we use returns from the 31-day window as the dependent variable and the regressor set employed by Jarrell and Poulsen, estimated coefficients are similar to theirs in sign, magnitude, and statistical significance.

Table 14

Ordinary least squares regression of announcement returns on firm characteristics without a correction for sample selection bias. The dependent variable is the abnormal announcement return for days [-1,1], calculated using the CRSP equally weighted index as the market portfolio, with day zero corresponding to the proxy mailing date. Robust t-statistics in parentheses.

Panel A: 332 NYSE listed firms, of which 191 offer antitakeover amendments<sup>1</sup>

Voting power of officers		Voting power of blockholders				Other		Likelihood ratio statistic <sup>2</sup>
CEO	All officers and directors	Officers	Independent directors	Affiliated investment plans	Institutions	Independent institutions	Institutional ownership	Firm size
-0.00 (-0.16)	0.07 (2.27)	-0.08 (-2.65)	-0.06 (-1.60)	-0.03 (-0.90)	-0.04 (-0.71)	-0.00 (-0.04)	-0.00 (-1.81)	-0.00 (-0.54)
								0.06

51

Panel B: 191 NYSE listed firms that offer antitakeover amendments<sup>3</sup>

Voting power of officers		Voting power of blockholders				Other		Likelihood ratio statistic
CEO	All officers and directors	Officers	Independent directors	Affiliated investment plans	Institutions	Independent institutions	Institutional ownership	Firm size
0.06 (1.12)	0.04 (0.85)	-0.07 (-1.89)	-0.05 (-0.45)	-0.04 (-1.21)	-0.06 (-0.76)	0.03 (0.38)	-0.01 (-0.96)	0.00 (0.11)
								N.A.

<sup>1</sup>A Hausman test for model consistency yields a  $\chi^2$  statistic of 8.45, which fails to reject the null of consistent estimation.

<sup>2</sup>The likelihood ratio statistic for non-nested models is a test of the null hypothesis that the ability of the nonlinear estimator of wealth effects to explain the data cannot be distinguished from the ability of the cross-sectional model described in panel A to explain the data. The test statistic, which is described in Vuong (1989), is distributed as standard normal. The observed value fails to reject the null.

<sup>3</sup>A Hausman test for model consistency yields a  $\chi^2$  statistic of 61.46, which rejects the null of consistent estimation.

significant increase in explanatory power. It is not possible to test the explanatory power of the two-stage estimator directly against the truncated regression in panel B, but we can provide some evidence on the statistical validity of the second model. A Hausman test of that model soundly rejects the null of consistent estimation.<sup>35</sup> The same test applied to the model in panel A fails to reject the null. This procedure confirms what intuition would suggest: Using a truncated sample leads to spurious inference.

#### 4.2 Econometric Issues

White (1982) and Vuong (1989) provide a set of statistical tools that may be used in the analysis of cross-sectional data of the type considered here. These afford inference in settings where the distributional assumptions used to construct parameter estimates are inaccurate. White offers procedures for detecting this type of misspecification and provides robust variants of the t-statistic, Wald statistic, and Lagrange Multiplier test. Vuong considers situations in which the models are non-nested and provides tools for model selection when neither candidate represents the data-generating process.

These statistics play an important role in our results. Estimation of either the probit model described in table 10 or the

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<sup>35</sup>The Hausman test, as described by White (1982), compares two estimators that converge to the true parameter values under the null of correct specification, but that diverge when the model is misspecified. One of these estimators must also be efficient under the null. The test statistics in the table are produced with an MLE estimator, which is efficient under the null, and a weighted least squares procedure.

nonlinear model of wealth effects described in table 11 with standard procedures reveals no statistically significant cross-sectional relationship. An information matrix test reveals why this is so: In both cases, the null of information matrix equivalence is soundly rejected by the data, indicating that the assumption of normality in the error term has been violated. The insights realized from tables 10 and 11 suggest that these techniques may be applied profitably in other cross-sectional studies motivated by issues in corporate finance, where results are typically weak.

#### 4.3 Employee Stock Ownership Plans

The most significant voting block identified by our structural model of the proxy agenda is that of ESOPs and other affiliated investment plans, primarily payroll stock ownership plans and employee thrift plans. There are a number of distinctions between these vehicles for employee stock ownership. The pertinent one is that the trustees for stock held in ESOPs control the voting rights attached to shares that have not been passed through to the accounts of individual employees.<sup>36</sup> As a consequence, a leveraged ESOP with trustees who are insiders represents a dedicated block of votes. The residual claimants to the cash flows associated with

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<sup>36</sup>ESOPs are the only qualified pension plans that are permitted to borrow from the employer to acquire employer securities, or to acquire employer securities with a loan guaranteed by the employer. Lenders are permitted to deduct 50 percent of the interest realized from a loan, the proceeds of which are used to purchase employer securities for an ESOP. See U.S. Senate (1989).

unallocated shares in the leveraged ESOP are the shareholders of the corporation (in those cases where the firm guarantees the loan used to create the ESOP) and employees who will purchase those shares at some later date. But these parties have neither the right to dispose of the shares, nor the right to direct the voting of shares. The separation between ownership and control could hardly be more complete.

The role of ESOPs in facilitating the passage of antitakeover amendments raises a related issue. Insiders who act as ESOP trustees have a fiduciary responsibility to the individuals whose funds are invested in the plan. That responsibility may prevent a trustee from actively opposing a takeover bid. The burden of this responsibility has purportedly caused a number of firms to structure their ESOPs in a manner that precludes a conflict of interest in a takeover situation. For example, the Polaroid ESOP calls for the immediate pass-through of voting rights on all shares, both allocated and unallocated, in the event of a hostile tender offer.<sup>37</sup> If, however, the votes associated with unallocated shares are used to erect takeover defenses, the disposition of voting rights in the event of a tender may be moot. The fact that those votes cannot be used to oppose an actual bid does not imply that the existence of the ESOP is immaterial for takeover activity.

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<sup>37</sup>We thank Mr. David Binns, executive director of the Employee Stock Ownership Association, for explaining this issue.

#### 4.4 Strategic Behavior

Our evidence concerning the role of strategic behavior in the proxy process is largely circumstantial. A vote controlled by a party with board representation appears to have a greater impact on the likelihood of adoption than a vote controlled by a party without board representation, suggesting that control of the proxy agenda and the proxy voting mechanism is valuable. Hidden amendments, bundled agenda, and the ownership structure of firms that engage in these activities indicate why this might be the case.

One additional piece of evidence warrants mention. In our sample of amendments, we have only a single example of a charter amendment being rejected by shareholders.<sup>38</sup> But during 1988 and 1989, shareholders rejected at least five antigreenmail amendments submitted to a vote. Inspection of the associated proxy statements reveals that the rejected proposals share one common feature: All were submitted by shareholders and opposed by management. Although we can draw no strong conclusions from so small a sample, it is indeed remarkable that the support or opposition of management seems more important than the substance of the proposal.

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<sup>38</sup>The managers of Informatics General Corp. requested shareholder approval of two antitakeover amendments when a merger proposal was outstanding. One of these was bundled with an antigreenmail amendment. Shareholders rejected these agenda proposals.

## 5. Conclusions

The corporate charter is a contract that governs relations between managers and shareholders. We have examined the process through which changes in that contract are implemented, and documented shareholder support for wealth-decreasing changes in governance. While the role of diffuse ownership and the associated public-goods problem cannot be overlooked in the search for an explanation of this phenomenon, we have provided evidence that strategic behavior may also play a role in proxy voting.

The results documented in this study have important implications for theories of security design and ownership structure, which are frequently set in an environment where contracting costs and ex post coordination or enforcement are not central issues. Disagreement among contracting parties is often induced by market incompleteness, which generates disagreement about the value of state-contingent claims.<sup>39</sup> In other cases, either asymmetric information about firm value or moral hazard on the part of management gives rise to conflict between shareholders and managers.<sup>40</sup> In all of these situations, shareholders are assumed to act as a group in designing and enforcing contracts.

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<sup>39</sup>Grossman and Stiglitz (1977), DeMarzo (1989), Ekern and Wilson (1974), Allen and Gale (1988), and Dreyfus (1989) all take this approach.

<sup>40</sup>Harris and Raviv (1989) and Gale and Hellwig (1985) study security design in the context of moral hazard. Williams (1987) focuses on a setting with private information.

The failure of shareholders to exercise their contractual right to block wealth-decreasing changes in governance suggests that transaction costs and ex post coordination problems deserve a more central role. In an environment where transaction costs are a major issue, a primary function of securities is to resolve the public-goods problem among agents who find it costly to gather information and enforce contracts. Calomiris and Kahn (1989) have recently applied these principles to banking. Our analysis suggests a similar approach may be appropriate in the analysis of corporate capital structures and security design.

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## Appendix A

Sample firms and proxy agenda. The sample of 183 firms offering antitakeover amendments is listed first in alphabetical order. The remaining 162 firms comprise the random sample.

Firm	Mailing Date	Any Amend	Entrench Board	Fair Price	Blank Check	Anti-gmail	Hidden	Bundle
AIRBORNE FGHT CORP	03/09/84	T	F	T	F	F	F	F
ALBERTSONS INC	04/12/85	T	F	T	T	F	F	F
ALLEGHENY INTL INC	03/27/84	T	T	T	F	F	F	F
ALUMINUM CO AMER	03/27/85	T	T	F	F	T	F	F
AMERADA HESS CORP	03/28/85	T	T	F	F	F	F	F
AMERICAN CYANAMID CO	03/07/85	T	F	T	F	F	F	F
AMERICAN PRESIDENT COS LTD	04/01/85	T	F	F	F	T	F	F
AMPCO-PITTSBURGH CORP	03/22/84	T	T	F	F	F	F	F
AMSTED INDS INC	11/23/84	T	T	T	F	F	F	F
ANDERSON GREENWOOD & CO	04/17/84	T	F	T	F	F	F	F
ANHEUSER BUSCH COS INC	03/21/85	T	T	T	F	T	F	T
ANTHEM ELECTRS INC	05/18/84	T	F	T	F	F	F	F
APACHE CORP	04/10/85	T	F	T	F	T	F	F
ARKANSAS BEST CORP	04/10/84	T	T	T	F	F	F	F
ATLANTIC RICHFIELD CO	03/18/85	T	T	F	F	T	T	F
AVERY INTL CORP	02/26/85	T	F	F	F	T	F	F
BALL CORP	03/11/85	T	T	T	T	F	F	F
BARD C R INC	03/13/85	T	F	T	F	F	F	F
BARNETT BANKS FLA INC	02/28/85	T	T	T	F	T	F	F
BAUSCH & LOMB INC	03/15/85	T	T	F	F	T	T	T
BEATRICE FOODS CO	04/30/84	T	T	T	T	F	F	F
BECTON DICKINSON & CO	01/03/85	T	F	T	F	F	F	F
BEVERLY ENTERPRISES	03/25/85	T	F	F	T	F	F	F
BINKS MFG CO	04/09/84	T	T	F	F	F	F	F
BORDEN INC	03/05/84	T	F	T	F	F	F	F
BOWNE & CO INC	01/27/84	T	T	F	F	F	F	F
BRISTOL MYERS CO	03/20/84	T	T	T	F	F	F	F
BROOKLYN UN GAS CO	01/02/85	T	F	T	F	F	F	F
BRUNSWICK CORP	03/11/85	T	T	F	T	F	F	F
BURLINGTON NORTHN INC	03/15/85	T	T	T	F	F	F	F
BURNDY CORP	03/22/85	T	F	T	F	F	F	F
C I G N A CORP	03/11/85	T	F	T	F	F	F	F
CABOT CORP	12/28/84	T	F	T	F	F	F	F
CARLISLE CORP	03/20/84	T	F	T	F	F	F	F

Firm	Mailing Date	Any Amend	Entrench Board	Fair Price	Blank Check	Anti-gmail	Hidden	Bundle
CENTURY TEL ENTERPRISES INC	03/25/85	T	T	T	F	F	F	F
CHAMPION SPARK PLUG CO	03/30/84	T	F	T	T	F	F	F
CHESEBROUGH PONDS INC	03/26/85	T	F	F	F	T	F	F
CONAGRA INC	08/21/85	T	T	F	T	T	F	F
CONNECTICUT ENERGY CORP	03/24/84	T	T	T	F	F	F	F
CONSOLIDATED FREIGHTWAYS INC	03/18/85	T	T	F	F	F	F	F
CONSOLIDATED NAT GAS CO	04/09/84	T	T	T	F	F	F	F
CONTINENTAL INFORMATION SYS	06/05/85	T	T	T	F	T	F	T
COOPER TIRE & RUBR CO	03/22/85	T	T	T	F	F	F	F
CORNING GLASS WKS	03/06/85	T	T	T	F	F	F	F
DATA GEN CORP	12/17/84	T	F	T	F	F	F	F
DAYTON HUDSON CORP	04/24/85	T	F	T	F	F	F	F
DE LUXE CHECK PRINTERS INC	04/02/85	T	F	T	F	T	F	T
DIAMOND SHAMROCK CORP	04/10/85	T	T	T	F	T	T	T
DORSEY CORP	03/15/85	T	T	T	F	F	F	F
DOVER CORP	03/18/85	T	T	F	F	T	F	T
DRESSER INDS INC	02/15/85	T	F	T	F	T	F	F
DUCOMMUN INC	03/27/84	T	F	F	T	F	F	F
EAGLE PICHER INDS INC	02/15/85	T	T	T	F	F	F	F
EASTERN GAS & FUEL ASSOC	03/18/85	T	T	F	F	T	T	T
EMERY AIR FGHT CORP	03/26/84	T	T	T	F	F	F	F
EMPIRE DIST ELEC CO	03/23/84	T	T	T	F	F	F	F
FABRI CTRS AMER INC	05/04/84	T	F	T	T	F	F	F
FACET ENTERPRISES INC	01/04/85	T	T	F	T	F	F	F
FAIRFIELD CMNTYS INC	06/04/84	T	T	T	F	F	F	F
FAYS DRUG INC	04/12/85	T	F	T	F	T	F	T
FEDERAL MOGUL CORP	03/29/85	T	F	F	T	F	F	F
FIRST WYO BANCORPORATION	04/08/85	T	T	T	F	F	F	F
FLEETWOOD ENTERPRISES INC	07/18/85	T	F	F	F	T	F	F
FLEMING COS INC	03/20/85	T	F	T	F	T	F	T
FRUEHAUF CORP	03/27/85	T	T	F	F	T	F	T
FUQUA INDS INC	04/05/85	T	F	F	T	T	F	F
GALAXY CARPET MLS INC	01/09/84	T	T	F	F	F	F	F
GENERAL DATACOMM INDS INC	01/04/84	T	F	T	T	F	F	F
GENISCO TECHNOLOGY CORP	01/17/84	T	T	T	T	F	T	F
GERBER PRODS CO	06/20/84	T	F	T	F	F	F	F
GLOBAL MARINE INC	03/27/85	T	T	F	F	F	F	F

Firm	Mailing Date	Any Amend	Entrench Board	Fair Price	Blank Check	Anti-gmail	Hidden	Bundle
GOLDEN NUGGET INC	05/10/84	T	T	T	F	F	F	F
GOLDEN WEST FINL CORP DEL	03/14/84	T	T	T	F	F	F	F
GOULD INC	03/23/85	T	T	T	F	T	T	T
GREAT NORTHN NEKOOSA CORP	03/22/84	T	T	T	F	F	F	F
GRUMMAN CORP	03/14/85	T	T	T	F	F	F	F
GULF & WESTN INDS INC	10/26/84	T	T	T	F	F	F	F
HARPER & ROW PUBLISHERS DEL	07/13/84	T	T	T	F	F	F	F
HEALTH MOR INC	04/09/84	T	F	T	F	F	F	F
HECKS INC	04/01/85	T	T	F	T	T	F	T
HELENE CURTIS INDS INC	05/09/84	T	T	T	F	F	F	F
HILTON HOTELS CORP	04/05/85	T	T	T	T	F	F	F
HOME DEPOT INC	05/01/84	T	T	T	F	F	F	F
HOMESTAKE MNG CO	04/03/84	T	T	T	F	F	F	F
HONEYWELL INC	03/07/85	T	T	T	F	F	F	F
ILLINOIS TOOL WKS INC	03/21/84	T	T	T	F	F	F	F
INEXCO OIL CO	04/13/84	T	T	T	F	F	F	F
INFORMATICS GEN CORP	04/26/85	T	F	T	F	T	F	T
INTERCO INC	05/17/85	T	T	F	F	T	F	T
INTERNATIONAL MINERALS & CHEM	09/06/84	T	F	F	F	T	F	F
INTERNATIONAL MULTIFOODS CORP	05/10/85	T	T	F	F	T	F	F
INTERNATIONAL PAPER CO	03/05/85	T	T	T	F	F	F	F
JAMESWAY CORP	05/08/84	T	F	T	T	F	F	F
KN ENERGY INC	02/22/85	T	F	T	F	F	F	F
KANEB SVCS INC	04/02/85	T	F	T	F	T	F	F
KERR MCGEE CORP	03/27/85	T	F	T	T	T	F	T
KEYSTONE INTL INC	04/11/84	T	F	T	F	F	F	F
KNIGHT RIDDER NEWSPAPERS INC	03/15/85	T	T	T	F	F	F	F
KOPPERS INC	03/16/84	T	T	T	F	F	F	F
KUHLMAN CORP	03/20/85	T	F	F	F	F	F	F
LEAR SIEGLER INC	09/28/84	T	T	T	F	F	F	F
LEGGETT & PLATT INC	03/28/84	T	F	T	F	F	F	F
LIBERTY CORP S C	04/04/85	T	T	T	F	F	F	F
LILLY ELI & CO	03/04/85	T	T	T	F	F	F	F
LINCOLN NATL CORP IND	04/02/85	T	F	T	F	F	F	F
LONE STAR INDS INC	04/09/84	T	T	T	F	F	F	F
LONGS DRUG STORES INC	04/25/84	T	F	T	F	F	F	F
LOUISIANA LD & EXPL CO	03/26/85	T	F	F	T	F	F	F

Firm	Mailing Date	Any Amend	Entrench Board	Fair Price	Blank Check	Anti-gmail	Hidden	Bundle
LUBRIZOL CORP	03/18/85	T	T	T	F	T	F	T
LUNDY ELECTRS & SYS INC	04/09/84	T	F	T	F	F	F	F
MARRIOTT CORP	04/10/84	T	T	T	F	F	F	F
MARSH & MC LENNAN COS INC	04/12/85	T	T	T	T	F	F	F
MATRIX CORP N J	01/10/85	T	T	T	F	F	F	F
MC DONNELL DOUGLAS CORP	03/20/84	T	F	T	F	F	F	F
MC GRAW HILL INC	03/13/85	T	T	T	F	F	F	F
MCKESSON CORP	06/18/84	T	T	T	T	F	F	F
MEAD CORP	03/18/85	T	T	F	F	F	F	F
MEASUREX CORP	02/27/85	T	F	F	T	F	F	F
MERCK & CO INC	03/15/85	T	T	T	F	T	F	T
MILTON ROY CO	04/19/84	T	T	T	F	F	F	F
MOBIL CORP	01/25/85	T	T	T	F	T	F	F
NAFCO FINL GROUP INC	01/03/84	T	F	T	F	F	F	F
N C R CORP	03/04/85	T	F	F	F	T	F	F
NALCO CHEM CO	03/19/84	T	T	T	T	F	F	F
NANTUCKET INDS INC	07/02/84	T	T	T	F	F	F	F
NATIONAL FUEL GAS CO N J	01/04/85	T	T	T	F	F	F	F
NATIONAL PATENT DEV CORP	04/30/85	T	F	F	T	F	F	F
NOBLE AFFILIATES INC	03/16/84	T	F	T	F	F	F	F
NORTEK INC	03/30/84	T	F	T	F	F	F	F
NORTHROP CORP	03/28/85	T	T	T	T	F	F	F
NORTON CO	03/15/84	T	F	T	F	F	F	F
OLIN CORP	03/19/85	T	T	F	F	F	F	F
ONEOK INC	02/10/84	T	T	T	F	F	F	F
OWENS ILL INC	03/06/85	T	T	F	F	F	F	F
PARADYNE CORP	03/28/84	T	F	T	F	F	T	F
PAYLESS CASHWAYS INC	02/28/85	T	T	T	F	F	F	F
PENNEY J C INC	04/12/85	T	T	T	F	F	F	F
PHILIPS INDS INC	05/24/85	T	F	T	F	T	F	T
PHILLIPS PETE CO	03/09/84	T	F	T	F	F	F	F
PITNEY BOWES INC	03/21/84	T	T	T	F	F	F	F
POTLATCH CORP	03/20/84	T	T	F	T	F	F	F
PRAIRIE PRODUCING CO	04/06/84	T	F	T	F	F	F	F
PRATT & LAMBERT INC	04/09/85	T	T	T	F	F	F	F
PROCTER & GAMBLE CO	08/28/85	T	T	T	T	T	F	T
QUANEX CORP	02/28/84	T	T	T	F	F	F	F

Firm	Mailing Date	Any Amend	Entrench Board	Fair Price	Blank Check	Anti-gmail	Hidden	Bundle
RANSBURG CORP	03/11/85	T	T	T	F	F	F	F
RAYTHEON CO	04/19/85	T	T	T	F	F	F	F
REVLON INC	03/26/85	T	T	F	F	F	F	F
ROHR INDS INC	10/08/84	T	F	T	F	F	F	F
ROLLINS ENVIRONMENTAL SVCS INC	12/28/84	T	T	T	F	F	F	F
RYDER SYS INC	03/26/84	T	T	T	F	F	F	F
SCANA CORP	03/20/85	T	T	F	F	T	F	T
SCHERING PLOUGH CORP	03/11/85	T	T	T	F	F	F	F
SECURITY CAP CORP DEL	01/29/85	T	F	T	F	F	F	F
SERVOTRONICS INC	06/13/84	T	T	T	F	F	F	F
SINGER CO	03/28/85	T	T	T	F	T	F	T
SNAP ON TOOLS CORP	03/28/84	T	F	T	F	F	F	F
SQUIBB CORP	03/30/84	T	F	T	F	F	F	F
STANLEY WKS	03/08/84	T	F	T	T	F	F	F
STERLING DRUG INC	03/14/85	T	T	T	F	T	F	F
STOP & SHOP COS INC	04/18/85	T	F	T	F	F	F	F
SUN INC	04/03/84	T	F	F	F	T	F	F
SUN INC	04/04/85	T	F	T	T	F	F	F
SYBRON CORP	03/11/85	T	T	T	F	F	F	F
SYSTEMS ENGR & MFG CORP	01/08/85	T	T	T	F	T	F	F
TENNECO INC	03/25/85	T	T	T	T	F	F	F
TENNEY ENGR INC	04/02/84	T	T	T	F	F	F	F
TEXACO INC	04/16/84	T	T	T	F	F	F	F
TEXAS EASTN CORP	03/09/84	T	T	F	T	F	F	F
TEXTRON INC	03/19/84	T	T	T	F	F	F	F
THOMAS & BETTS CORP	03/15/85	T	F	T	F	T	F	T
TIMKEN CO	03/01/85	T	T	F	F	F	F	F
TRANSWAY INTL CORP	03/22/85	T	F	F	T	F	F	F
U S G CORP	04/08/85	T	F	F	F	F	F	F
UNION PAC CORP	03/07/85	T	F	T	F	F	F	F
UNITED STS SHOE CORP	04/22/85	T	T	F	F	F	F	F
UNITED STS TOB CO	03/26/84	T	F	T	F	F	F	F
UNIVAR CORP	06/28/85	T	T	F	F	T	F	T
VAN DORN CO	03/28/84	T	F	T	F	F	F	F
VULCAN MATLS CO	03/22/84	T	T	T	T	F	F	F
WARNACO INC	03/26/85	T	F	F	F	T	F	F
WASTE MGMT INC	04/01/85	T	T	T	F	T	T	T

Firm	Mailing Date	Any Amend	Entrench Board	Fair Price	Blank Check	Anti-gmail	Hidden	Bundle
WESTVACO CORP	01/03/84	T	T	T	F	F	F	F
FIRST BK SYS INC	03/15/85	F	F	F	F	F	F	F
LUCKY STORES INC	05/04/85	F	F	F	F	F	F	F
INTERLAKE INC	03/21/84	F	F	F	F	F	F	F
ASHLAND OIL INC	12/16/85	T	T	T	T	F	F	F
UPJOHN CO	04/05/85	T	T	T	T	F	F	F
SOUTHEAST BKG CORP	03/15/85	F	F	F	F	F	F	F
FLORIDA STL CORP	12/13/83	F	F	F	F	F	F	F
TYLER CORP	03/05/84	F	F	F	F	F	F	F
MARK CTLS CORP	03/26/84	F	F	F	F	F	F	F
SEAGRAM LTD	04/19/85	T	F	F	F	F	F	F
MARSHALL INDS	09/17/84	F	F	F	F	F	F	F
CAROLINA FREIGHT CORP	03/23/84	F	F	F	F	F	F	F
TAMBRANDS INC	03/22/85	F	F	F	F	F	F	F
ANCHOR HOCKING CORP	03/28/85	F	F	F	F	F	F	F
MEDTRONIC INC	07/19/85	F	F	F	F	F	F	F
POLAROID CORP	03/19/84	F	F	F	F	F	F	F
UNIVERSAL FOODS CORP	12/16/83	F	F	F	F	F	F	F
AMERICAN STERILIZER CO	03/30/84	F	F	F	F	F	F	F
MANOR CARE INC	08/01/85	F	F	F	F	F	F	F
TWIN DISC INC	09/17/84	F	F	F	F	F	F	F
DEAN FOODS CO	03/27/84	F	F	F	F	F	F	F
STANDEX INTL CORP	09/14/84	F	F	F	F	F	F	F
COLGATE PALMOLIVE CO	03/28/84	F	F	F	F	F	F	F
WISCONSIN PUB SVC CORP	03/29/85	F	F	F	F	F	F	F
CUMMINS ENGINE INC	03/06/85	F	F	F	F	F	F	F
COLLINS & AIKMAN CORP	05/13/85	F	F	F	F	F	F	F
WEST POINT PEPPERELL INC	11/07/84	F	F	F	F	F	F	F
THOMAS INDS INC	03/18/85	F	F	F	F	F	F	F
C S X CORP	03/12/84	F	F	F	F	F	F	F
BANDAG INC	04/10/84	F	F	F	F	F	F	F
ECHLIN INC	12/13/83	F	F	F	F	F	F	F
MARION LABS INC	09/26/85	F	F	F	F	F	F	F
PRIME COMPUTER INC	03/30/84	F	F	F	F	F	F	F
ALAGASCO INC	12/09/83	F	F	F	F	F	F	F
OVERNITE TRANSN CO	03/27/85	F	F	F	F	F	F	F
PANHANDLE EASTN CORP	03/15/84	F	F	F	F	F	F	F

Firm	Mailing Date	Any Amend	Entrench Board	Fair Price	Blank Check	Anti-gmail	Hidden	Bundle
ANACOMP INC	02/11/85	F	F	F	F	F	F	F
ARMSTRONG RUBR CO	01/05/84	F	F	F	F	F	F	F
CONTROL DATA CORP DEL	03/22/84	F	F	F	F	F	F	F
MACY R H & CO INC	10/18/85	F	F	F	F	F	F	F
KERR GLASS MFG CORP	03/29/85	F	F	F	F	F	F	F
UNION CARBIDE CORP	03/18/85	F	F	F	F	F	F	F
BROCKWAY INC	03/21/84	F	F	F	F	F	F	F
BAKER INTL CORP	12/17/85	F	F	F	F	F	F	F
COMMERCIAL METALS CO	12/27/83	F	F	F	F	F	F	F
WEST INC	04/01/85	F	F	F	F	F	F	F
NORTH AMERN COAL CORP	03/29/85	F	F	F	F	F	F	F
AIR EXPRESS INTL CORP	05/29/84	F	F	F	F	F	F	F
SAVANNAH ELEC & PWR CO	04/09/84	F	F	F	F	F	F	F
SHAPELL INDS INC	06/19/84	F	F	F	F	F	F	F
PERRY DRUG STORES INC	02/07/84	F	F	F	F	F	F	F
REXNORD INC	02/22/85	F	F	F	F	F	F	F
FLEET FINL GROUP INC	03/09/84	F	F	F	F	F	F	F
ANTA CORP	10/10/84	F	F	F	F	F	F	F
WINNEBAGO INDS INC	12/05/84	F	F	F	F	F	F	F
SYSCO CORP	09/27/85	F	F	F	F	F	F	F
CHRIS CRAFT INDS INC	11/07/84	F	F	F	F	F	F	F
MASLAND C H & SONS	03/23/84	F	F	F	F	F	F	F
AYDIN CORP	03/14/84	F	F	F	F	F	F	F
SEIS PROS INC	07/31/84	F	F	F	F	F	F	F
CASTLE & COOKE INC	09/06/84	F	F	F	F	F	F	F
CONQUEST EXPL CO	04/01/85	F	F	F	F	F	F	F
UNIROYAL INC	03/12/85	T	T	T	F	F	F	F
BOISE CASCADE CORP	03/01/84	T	T	F	F	F	F	F
INTERFIRST CORP	03/08/85	F	F	F	F	F	F	F
GENUINE PARTS CO	03/09/84	F	F	F	F	F	F	F
GROLIER INC	03/16/84	F	F	F	F	F	F	F
REECE CORP	03/28/84	F	F	F	F	F	F	F
ALEXANDERS INC	10/24/85	F	F	F	F	F	F	F
LA MAUR INC	03/19/84	F	F	F	F	F	F	F
HOLIDAY INNS INC	03/22/85	T	T	T	F	T	T	F
SCOTTYS INC	08/15/84	F	F	F	F	F	F	F
TRIANGLE PAC CORP	03/28/84	F	F	F	F	F	F	F

Firm	Mailing Date	Any Amend	Entrench Board	Fair Price	Blank Check	Anti-gmail	Hidden	Bundle
TRANSTECHNOLOGY CORP	08/19/85	F	F	F	F	F	F	F
LEUCADIA NATL CORP	04/16/84	F	F	F	F	F	F	F
STRIDE RITE CORP	02/28/85	F	F	F	F	F	F	F
WILLIAMS COS	03/12/84	F	F	F	F	F	F	F
KIMBERLY CLARK CORP	03/06/85	F	F	F	F	F	F	F
NICHOLS S E INC	06/06/84	F	F	F	F	F	F	F
MEDALIST INDS INC	03/22/84	F	F	F	F	F	F	F
TONKA CORP	04/20/84	F	F	F	F	F	F	F
SOUTHERN UNION CO	03/20/85	F	F	F	F	F	F	F
PITTSTON CO	04/11/85	F	F	F	F	F	F	F
MURPHY OIL CORP	04/01/85	F	F	F	F	F	F	F
PITTSWAY CORP	04/04/84	F	F	F	F	F	F	F
WITCO CHEM CORP	03/26/84	F	F	F	F	F	F	F
KEARNEY NATL INC	04/10/85	F	F	F	F	F	F	F
G C A CORP	04/04/84	F	F	F	F	F	F	F
COLONIAL PENN GROUP INC	03/29/85	F	F	F	F	F	F	F
ABBOTT LABS	03/11/85	F	F	F	F	F	F	F
TORCHMARK CORP	03/27/85	F	F	F	F	F	F	F
TEXAS INDS INC	09/12/84	F	F	F	F	F	F	F
PAY LESS DRUG STORES NORTHWEST	04/13/84	F	F	F	F	F	F	F
MITCHELL ENERGY & DEV CORP	05/15/85	F	F	F	F	F	F	F
INTERNATIONAL FLAVORS & FRAG	04/05/85	F	F	F	F	F	F	F
PENRIL CORP	11/19/85	F	F	F	F	F	F	F
UNITY BUYING SVC INC	03/29/84	F	F	F	F	F	F	F
WENDYS INTL INC	03/23/84	F	F	F	F	F	F	F
COMBINED INTL CORP	03/12/85	F	F	F	F	F	F	F
ELECTROSPACE SYS INC	06/25/85	F	F	F	F	F	F	F
MC GRAW EDISON CO	03/23/84	F	F	F	F	F	F	F
LOCKHEED CORP	03/30/84	F	F	F	F	F	F	F
MAC MILLAN INC	03/29/85	F	F	F	F	F	F	F
CROWN ZELLERBACH CORP	04/01/85	F	F	F	F	F	F	F
BARRY WRIGHT CORP	03/01/85	F	F	F	F	F	F	F
PFIZER INC	03/12/85	T	T	T	F	F	F	F
GORMAN RUPP CO	03/16/84	F	F	F	F	F	F	F
CHEVRON CORPORATION	03/23/84	F	F	F	F	F	F	F
STANDARD OIL CO IND	03/03/85	T	T	F	F	F	F	F
CARSON PIRIE SCOTT & CO DEL	04/25/84	T	T	F	F	F	F	F

Firm	Mailing Date	Any Amend	Entrench Board	Fair Price	Blank Check	Anti-gmail	Hidden	Bundle
NEVADA SVGS & LN ASSN	03/31/85	F	F	F	F	F	F	F
LITTON INDS INC	10/25/85	F	F	F	F	F	F	F
ETHYL CORP	03/30/84	F	F	F	F	F	F	F
STANWOOD CORP	03/28/84	F	F	F	F	F	F	F
WASHINGTON GAS LT CO	03/08/85	F	F	F	F	F	F	F
REICHOLD CHEMS INC	03/21/85	F	F	F	F	F	F	F
RESEARCH COTTRELL INC	02/04/84	F	F	F	F	F	F	F
FAIRCHILD INDS INC	03/18/85	F	F	F	F	F	F	F
OWENS CORNING FIBERGLAS CORP	03/08/84	F	F	F	F	F	F	F
FEDERATED DEPT STORES INC	04/25/85	F	F	F	F	F	F	F
TEKTRONIX INC	08/17/84	T	F	T	F	F	F	F
U N C RES INC	04/29/85	F	F	F	F	F	F	F
COMPUTERVISION CORP	03/29/84	F	F	F	F	F	F	F
STONE CONTAINER CORP	04/06/84	F	F	F	F	F	F	F
GUARDSMAN CHEMS INC	04/04/85	F	F	F	F	F	F	F
MARY KAY COSMETICS INC	03/11/85	F	F	F	F	F	F	F
PORTLAND GEN ELEC CO	04/11/84	F	F	F	F	F	F	F
WHEELING PITTSBURGH STL CORP	03/19/84	F	F	F	F	F	F	F
HELMERICH & PAYNE INC	01/27/84	F	F	F	F	F	F	F
HARRIS GRAPHICS CORP	09/12/85	F	F	F	F	F	F	F
AVON PRODS INC	03/25/85	F	F	F	F	F	F	F
OVERHEAD DOOR CORP	04/09/84	T	T	F	T	F	F	F
CESSNA AIRCRAFT CO	12/07/84	F	F	F	F	F	F	F
UNITED INNS INC	12/31/84	F	F	F	F	F	F	F
MISSOURI PUB SVC CO	03/12/84	T	T	T	F	F	F	F
OKLAHOMA GAS & ELEC CO	04/11/85	F	F	F	F	F	F	F
MORTON THIOKOL INC	09/16/85	F	F	F	F	F	F	F
PLANNING RESH CORP	09/27/84	F	F	F	F	F	F	F
SEMTECH CORP	04/06/84	F	F	F	F	F	F	F
SCOVILL INC	03/12/84	F	F	F	F	F	F	F
EMHART CORP VA	03/23/84	F	F	F	F	F	F	F
BAXTER TRAVENOL LABS INC	03/30/85	F	F	F	F	F	F	F
PARKER HANNIFIN CORP	09/24/84	T	T	T	F	F	F	F
SYNTEX CORP	11/13/85	F	F	F	F	F	F	F
QUAKER ST OIL REFNG CORP	04/09/84	F	F	F	F	F	F	F
ESTERLINE CORP	01/11/85	F	F	F	F	F	F	F
UNITED INDL CORP	03/30/84	F	F	F	F	F	F	F

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AMERICAN SCIENCE & ENGR INC	06/30/84	F	F	F	F	F	F	F
GULFSTREAM AEROSPACE CORP	03/31/85	F	F	F	F	F	F	F
PALL CORP	10/25/85	F	F	F	F	F	F	F
NATIONAL GYPSUM CO	03/20/84	F	F	F	F	F	F	F
BROWN GROUP INC	01/25/85	F	F	F	F	F	F	F
CONWOOD CORP	03/27/84	F	F	F	F	F	F	F
FRIES ENTMT INC	11/08/85	F	F	F	F	F	F	F
I C N PHARMACEUTICALS INC	03/04/85	F	F	F	F	F	F	F
IMPERIAL INDS INC	04/19/84	F	F	F	F	F	F	F
PLANT INDS INC	04/24/84	F	F	F	F	F	F	F
G A F CORP	04/02/84	F	F	F	F	F	F	F
SANMARK STARDUST INC	10/31/84	F	F	F	F	F	F	F
BROWNING FERRIS INDS INC	01/23/85	T	T	T	T	F	F	F
FAMILY DLR STORES INC	11/26/85	F	F	F	F	F	F	F
AMERACE CORP	03/21/84	F	F	F	F	F	F	F